
SIP Trunking Configuration Guide for Cisco Unified Communications Manager v7.1.3

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1 Audience

This document is intended for the SIP Trunk customer's technical staff and Value Added Retailer (VAR) having installation and operational responsibilities.

2 Introduction

This Configuration Guide describes the configuration steps for Cox SIP Trunking with the Cisco Unified Communications Manager (CUCM) 7.1.3(b) and the Cisco Unified Border Element (CUBE) for connectivity to Cox's SIP Trunking service. Cox's SIP Trunking provides both inbound and outbound call services replacing traditional ISDN PRI services.

Cox SIP Trunking is a scalable and efficient IP trunking telecommunication solution for your business that provides all the traditional services such as Direct Inward Dialing, Hunting, Calling Name, Calling Number, Local/Long Distance and Business Continuity options, including:

- **Burstable Trunk Capacity** – Dynamically increases call capacity during peak busy periods so your customers never receive a busy signal.
- **Call Forward Always** – On the trunk group pilot number for all calls in case of an outage (flood, fire, power outage, etc.).
- **Call Forward Not Reachable** – On the trunk group pilot number that operates on a per-call contingency basis to forward the call to any PSTN number (i.e., call center or alternate office location) during temporary call completion impairments.
- **Route Exhaustion** – Automatic reroute of trunk group calls to any PSTN phone number (i.e., a call center) if calls can't be completed to the PBX.
- **Support for geo-redundant PBX deployments and automatic reroute of SIP Trunks to the backup customer data center.**

All calls are routed over Cox's national fiber network with guaranteed Quality of Service (QoS); calls never traverse the Internet.

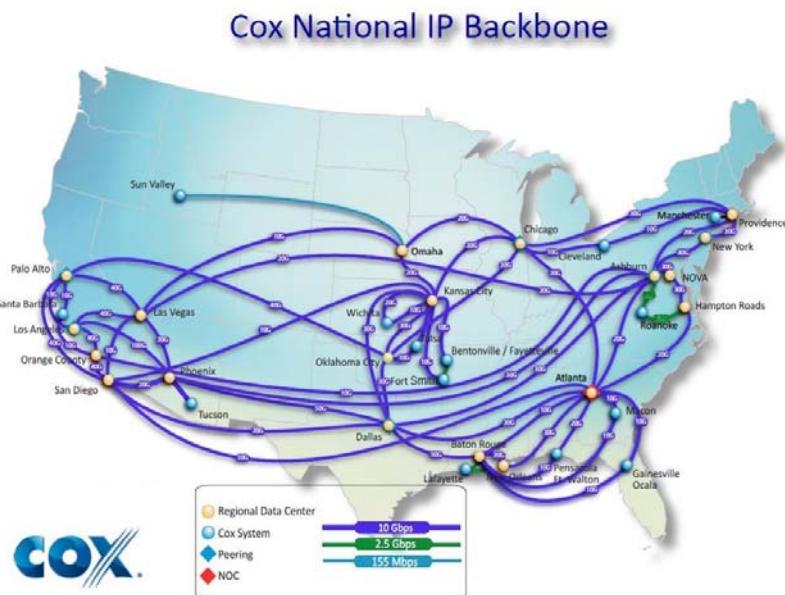


Figure 1 – Cox Fiber Network

3 Network Topology

The high level Cox SIP Trunk network architecture is depicted below. The key network elements are:

- IP PBX – Customer PBX for terminating SIP Trunks.
- Cox Enterprise Session Border Controller (E-SBC) – The E-SBC is a smart service demarcation device and SIP Application Layer Gateway (ALG) installed and managed by Cox.
- Core Session Border Controllers and Broadsoft SIP Call Server for maximum survivability and reliability.
- PSTN Gateway for connections to the Public Switched Telephone Network (PSTN).

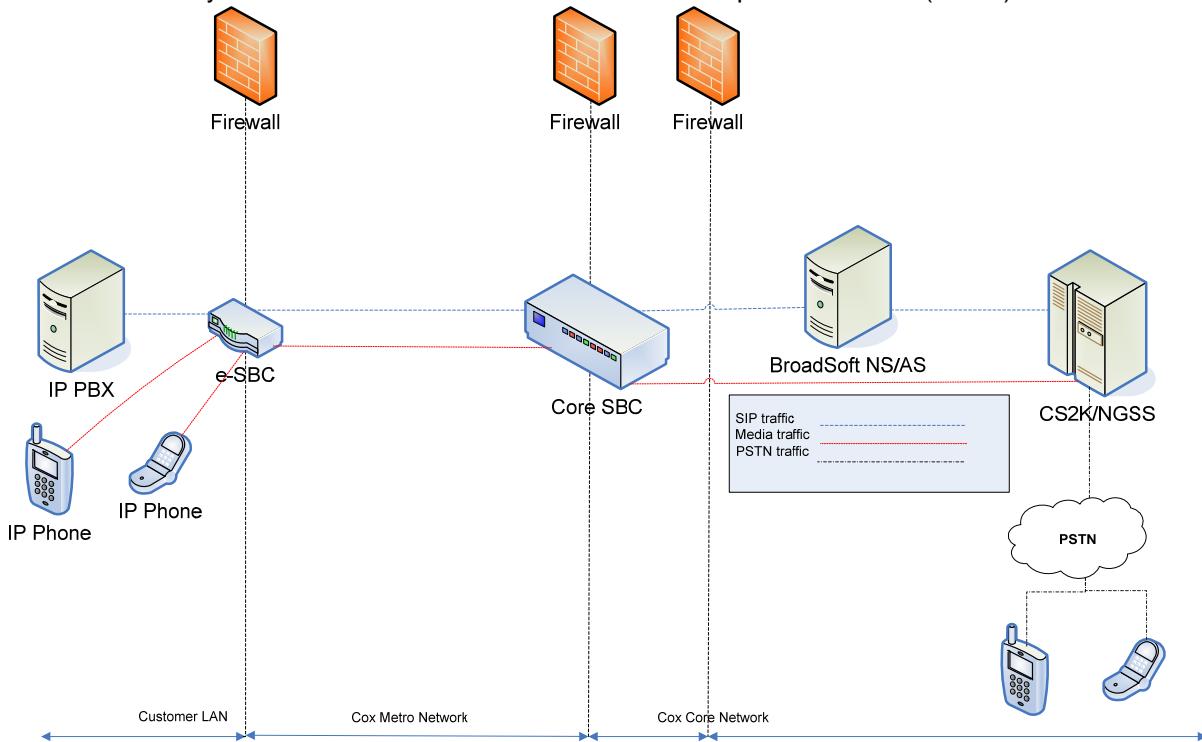


Figure 2 – Reference Network Architecture

This SIP Trunk network architecture is replicated across the Cox operating regions for scalability and operational autonomy.

Cox will deploy one or more Enterprise Session Border Controllers (E-SBCs) to meet call capacity, customer data center geo-redundancy and trunk group requirements. The E-SBC is owned and managed by Cox and is the service demarcation point. The E-SBC performs SIP ALG, SIP normalization, NAT, security, traffic shaping/prioritization, performance reporting and remote diagnostic functions.

4 System Components

The lab network for the SIP Trunk reference configuration is illustrated in **Figure 3** below and is representative of a CUCM network.

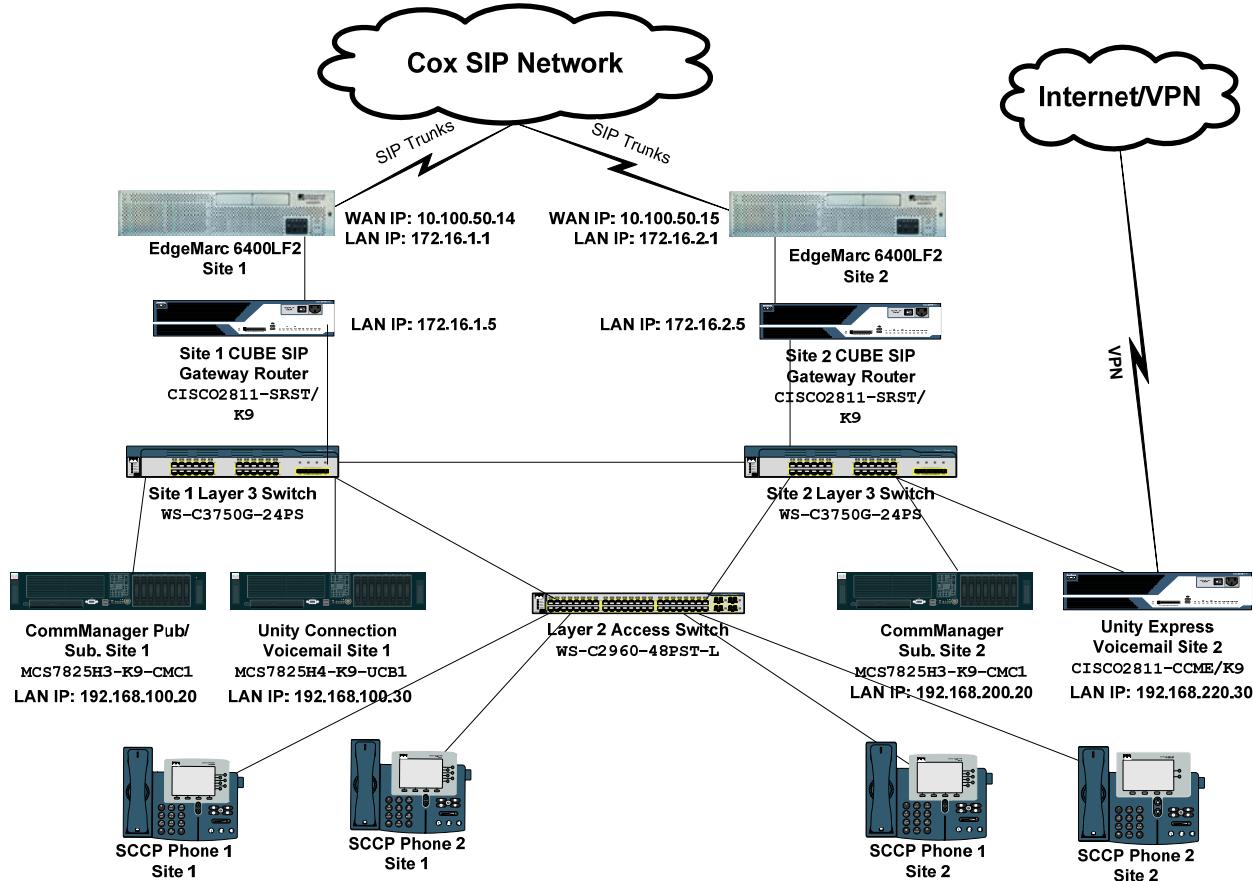


Figure 3 – SIP Trunk Lab Reference Network

4.1 Hardware Components

- Cisco IOS gateway running CUBE 1.2 (IOS image version 12.4)
- Cisco Unified Communications Manager cluster with two Cisco MCS 7800 Series servers
- Cisco 2811 router
- Cisco IP Phones. The topology diagram in Figure 3 depicts the 7960 and 7940, but any Cisco IP phone model may be used.
- Cisco VG202 Analog Voice Gateway
- EdgeMarc 6400 E-SBC

4.2 Software Requirements

- Cisco Unified Communications Manager 7.1.3(b)
- Cisco Unified Border Element (CUBE) version 1.2 IOS version 12.4
- Cisco GW IOS Release 12.4
- Cisco VG202 IOS Release version 12.4
- EdgeMarc 6400LF2 Release 9.12.0

5 Features

5.1 Supported Features

- Basic Calls with G.711ulaw CODEC
- Calling Party Number Presentation and Restriction
- Call Transfer
- Call Forwarding
- RFC2833 transcoding
- Calling party number presentation and privacy (P-Asserted-Identity)
- SIP UPDATE for call transfer support

5.2 Unsupported Features

- Codec negotiation of G.729, G.726 and others
- T.38 Fax relay

6 Caveats and Limitations

- A SIP header manipulation rule is required in the Cisco CUBE in for SIP Calls to proceed properly. A SIP profile was used to inject “user=phone” into the SIP INVITE and SIP RE-INVITE message headers that included: SIP Request-URI, Contact, To, and From header. Please refer to Section 7.3 for the SIP header rule definition.
- Cisco Analog Gateway(s) must be configured to support modem pass through for analog modem tones to work properly.

7 Configuration

The geo-redundant CUCM SIP Trunking lab network is illustrated in the figure below. The CUCM PBX at each site is assumed to be identically configured to carry the full call load in the event of a network failure at either location.

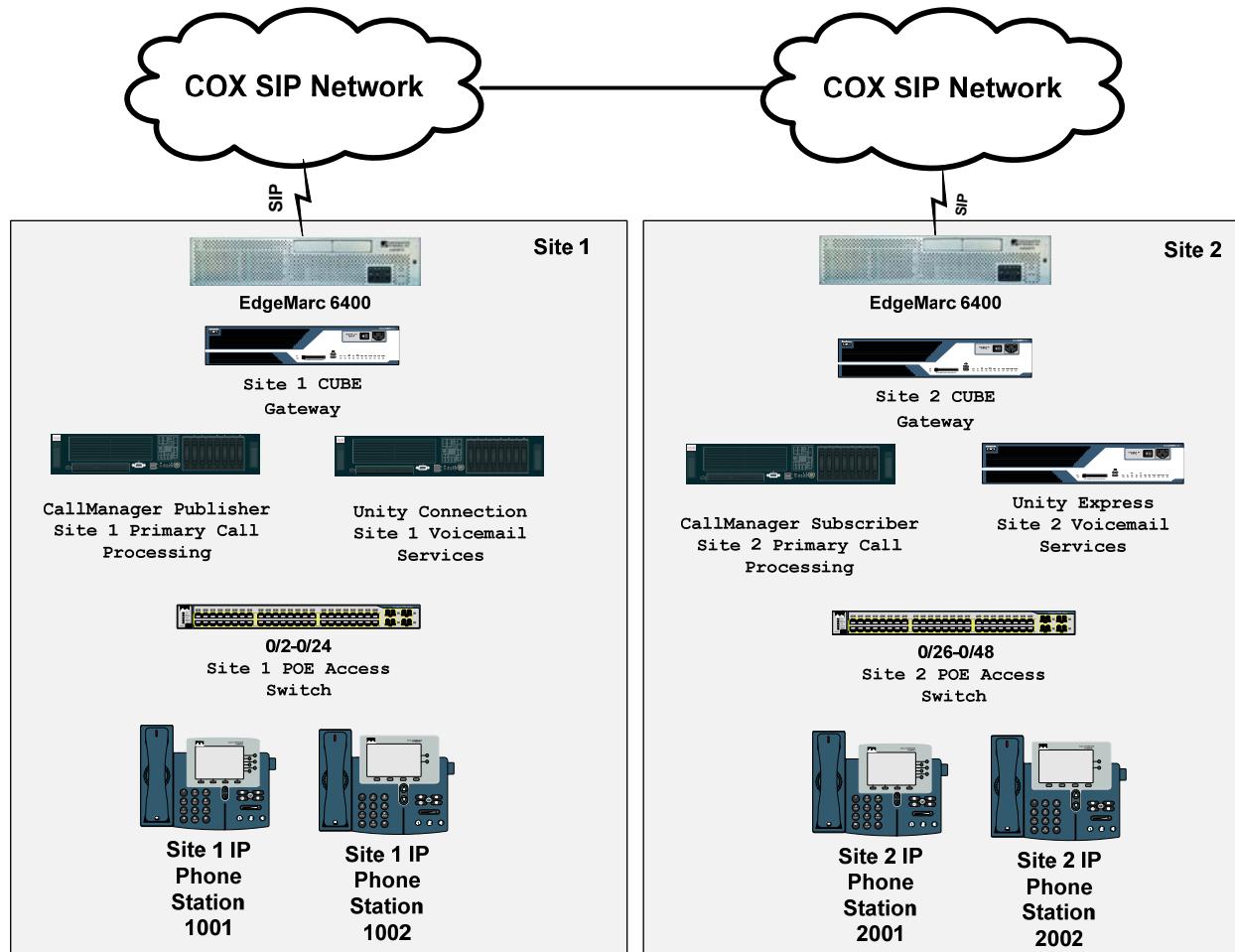


Figure 4 – Geo-Redundant CUCM Network

7.1 CUCM SIP Trunk Call Flows

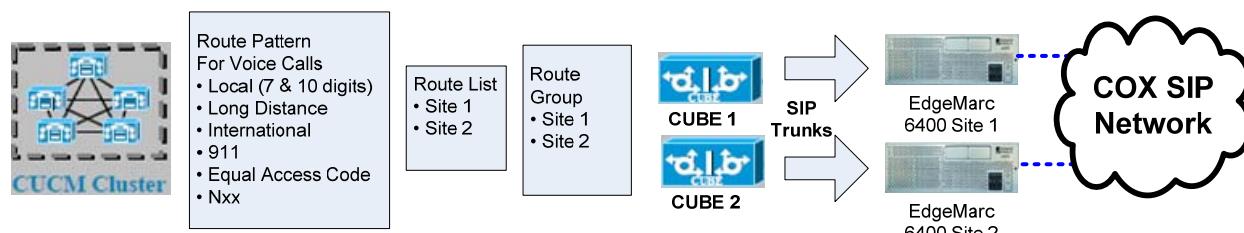


Figure 5 – Originating Call Flow Overview

The conceptual outgoing call flow is:

CUCM → CUBE → Cox E-SBC → Cox's SIP Network → PSTN

The same SIP Trunks are utilized for all voice types calls between CUCM and CUBE as shown above. All outgoing calls are routed from the CUCM to CUBE through the E-SBC to Cox's SIP Network and directed to the PSTN.

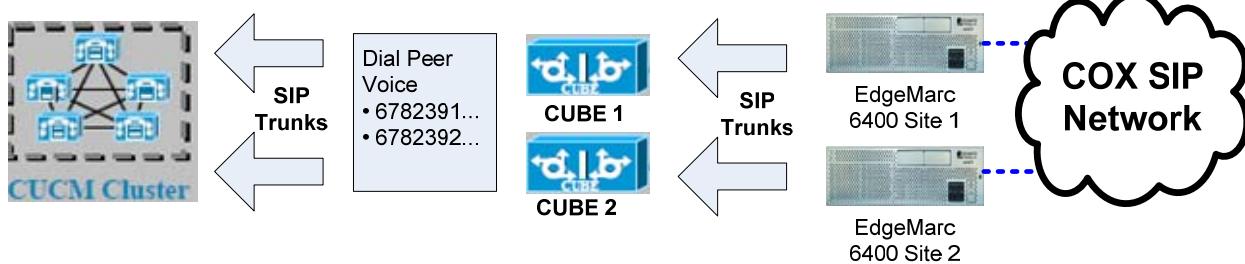


Figure 6 – Terminating Call Flow Overview

The Incoming call flow is:

PSTN → Cox's SIP Network → Cox E-SBC → CUBE → CUCM

In the lab example, a test account DID ranges were created for Cisco Unified Communications Manager interoperability certification:

Site 1: 678.239.1xxx
 Site 2: 678.239.2xxx

All incoming calls are routed to CUCM Site 1 if the Called party number begins with 678.239.1xxx. Calls 678.239.2xxx are routed to CUCM Site 2.

7.2 SIP Trunk IP Address Assignments

To help organize your work, the IP addresses listed in **Table 1** should be recorded for your deployment and referenced in the configuration steps described in this document.

Table 1 – IP Addresses

Component	Cox Lab	Your Value
Cisco CUBE		
• Site 1 CUBE Gateway IP Address	172.16.1.5	
• Site 1 CUBE Gateway IP Address	172.16.2.5	
Cox E-SBC EdgeMarc 6400's		
• LAN IP Address Site 1	172.16.1.1	
• LAN Subnet Mask Site 1	255.255.255.0	
• LAN IP Address Site 2	172.16.2.1	
• LAN Subnet Mask Site 2	255.255.255.0	

7.3 Cisco Unified Border Element (CUBE) Configuration

Cisco Unified Border Element (CUBE) routers are utilized to hand off SIP calls to the Cox E-SBC. The CUBE feature set allowed for modification of key sip headers using manipulation rules to format both SIP INVITE and SIP RE-INVITE SIP messages to proceed properly.

The following sip profile was used to inject “user=phone” into the INVITE and REINVITE headers.

```
voice class sip-profiles 1
request INVITE sip-header SIP-Req-URI modify " SIP/2.0" ";user=phone SIP/2.0"
request REINVITE sip-header SIP-Req-URI modify " SIP/2.0" ";user=phone SIP/2.0"
request INVITE sip-header Contact modify ">" ";user=phone>"
request REINVITE sip-header Contact modify ">" ";user=phone>"
request INVITE sip-header To modify ">" ";user=phone>"
request REINVITE sip-header To modify ">" ";user=phone>"
request INVITE sip-header From modify ">" ";user=phone>"
request REINVITE sip-header From modify ">" ";user=phone>"
```

The SIP-SIP calling, interface binding, in-call signaling and sip profile activation was enabled using the following commands.

```
voice service voip
allow-connections sip to sip
fax protocol pass-through g711ulaw
sip
bind control source-interface Loopback0
bind media source-interface Loopback0
min-se 2000
header-passing
asserted-id pai
privacy pstn
midcall-signaling passthru
sip-profiles 1
```

Detail description:

1. **fax protocol pass-through g711ulaw** - Fax pass-through takes place when incoming T.30 fax data is not demodulated or compressed for its transit through the packet network. The two endpoints (fax machines) communicate directly to each other over a transparent IP connection. The gateway does not distinguish fax calls from voice calls.
2. **asserted-id pai** - To enable the translation to PAID headers in the outgoing header at a global level.
3. **privacy pstn** – To support of User privacy policy on the UCM, this flag is set on CUBE to preserve the P-Asserted-Identity and Privacy header on the outgoing SIP INVITE.

Dial-Peers are used to provide both inbound and outbound call legs. Each call utilizes two peers. The following shows the Site 1 dial peers. In the event that the primary path is not available, preference 1 dial peer is used. Preference 0 is the default and therefore does not show in Cisco IOS.

```
dial-peer voice 1 voip
destination-pattern 6782392...
session protocol sipv2
session target ipv4:192.168.200.20
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
```

```

!
dial-peer voice 2 voip
    preference 1
    destination-pattern 6782392...
    session protocol sipv2
    session target ipv4:192.168.100.20
    dtmf-relay rtp-nte
    codec g711ulaw
    ip qos dscp cs5 media
    ip qos dscp cs4 signaling
    no vad
!
dial-peer voice 10 voip
    translation-profile outgoing calling-mask
    destination-pattern 1[2-9]..[2-9].....
    session protocol sipv2
    session target ipv4:172.16.2.1
    dtmf-relay rtp-nte
    codec g711ulaw
    ip qos dscp cs5 media
    ip qos dscp cs4 signaling
    no vad
!
dial-peer voice 11 voip
    translation-profile outgoing calling-mask
    preference 1
    destination-pattern [2-9]..[2-9].....
    session protocol sipv2
    session target ipv4:172.16.2.1
    dtmf-relay rtp-nte
    codec g711ulaw
    ip qos dscp cs5 media
    ip qos dscp cs4 signaling
    no vad
!
dial-peer voice 12 voip
    translation-profile outgoing calling-mask
    destination-pattern 011T
    session protocol sipv2
    session target ipv4:172.16.2.1
    dtmf-relay rtp-nte
    codec g711ulaw
    ip qos dscp cs5 media
    ip qos dscp cs4 signaling
    no vad
!
dial-peer voice 13 voip
    translation-profile outgoing calling-mask
    destination-pattern 911
    session protocol sipv2
    session target ipv4:172.16.2.1
    dtmf-relay rtp-nte
    codec g711ulaw
    ip qos dscp cs5 media
    ip qos dscp cs4 signaling
    no vad
!
dial-peer voice 3 voip
    destination-pattern 6782391...
    session protocol sipv2
    session target ipv4:192.168.200.20
    dtmf-relay rtp-nte
    codec g711ulaw
    ip qos dscp cs5 media
    ip qos dscp cs4 signaling
    no vad

```

```
!
dial-peer voice 4 voip
preference 1
destination-pattern 6782391...
session protocol sipv2
session target ipv4:192.168.100.20
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
```

Redundant call paths for inbound calls require the following statement. The IOS default is too large and allows for a timeout before searching for the second peer (preference 1).

```
sip-ua
retry invite 3
timers trying 100
```

Redundant call paths for outbound calls are handled by the Communication Manager. Communications Manager will route outbound calls based on the calling phones Calling Search Space (CSS). Each device assigned CSS provides for a primary and secondary path for outbound calls. The times that identify the primary path as unavailable were modified on the Communications Manager. The following values were modified in the Communications Manager Service Parameters.

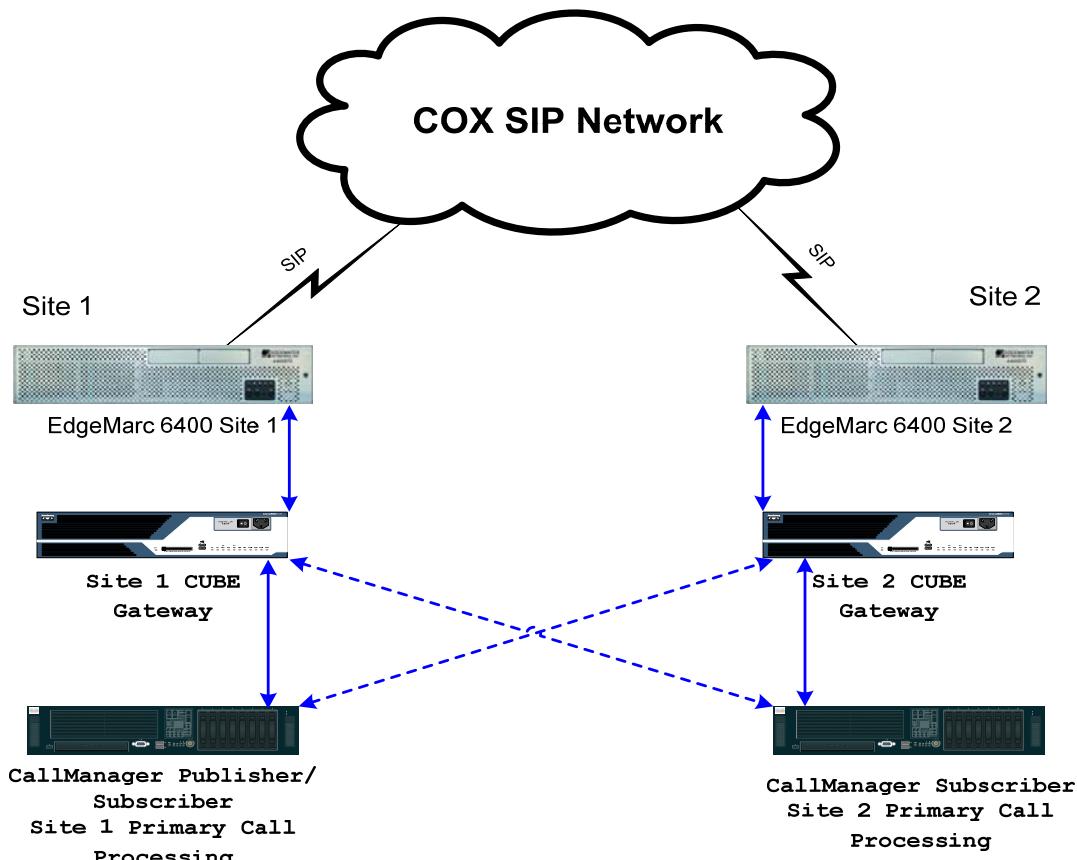


Figure 7 – Geo-Redundant Signaling Paths

Table 2 – SIP Trunk Failover Timers

Parameter	Default	Set
Retry Count for SIP Invite	6	1
SIP Trying Timer	500	100

See the following Cisco documentation for more information:

Failover Timer on SIP Trunks with CallManager Configuration Example:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_configuration_example09186a008082d76a.shtml

7.4 Configuring the Cisco Unified Communications Manager (UCM) Overview

7.4.1 Voice Services

Site Call Processing, Voicemail Services as well as InterLATA and IntraLATA SCCP and SIP voice calls are provided as defined here.

7.4.2 Call Processing

Cisco Unified Communications Manager 7.1.3(b) was deployed using the distributed model. Communications Manager Server, which provides primary call processing and telephony services, can be deployed at one or two sites that maintain their own databases that are synchronized with each other. In the event that the local Communications Manager server becomes unavailable, IP Phones will attempt to register with the remote sites Communications Manager. Both Communications Manager servers share the same database and are fully aware of devices and phones registered to each other.

7.4.3 Voicemail Services

Site 1 utilizes a Cisco Unity Connection server for voicemail services. Unity Connection is integrated with Communications Manager and provides voicemail and auto attendant services for Site 1. Site 2 has access to the Unity Connection server, but instead uses a local Cisco Unity Express Network Module (CUE) for voicemail and auto attendant services. The CUE module is located within the Cisco 2811 router.

Voicemail services are independent of each other and are not “networked” together. This means that they are unable to forward messages to each others mail store and are unaware of users configured outside their system.

7.4.4 Quality of Service

Quality of Service (QOS) is provided at both, layer 2 and layer 3 boundaries using the Cisco Auto QOS feature. Both, RTP and signaling packets are tagged and passed on to the Cox's IP Core Network for proper differential treatment.

7.4.5 Detail Communications Manager Configurations

 Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | Go | admin | About | Logout

System · Call Routing · Media Resources · Voice Mail · Device · Application · User Management

Find and List Device Pools

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Status
7 records found

Device Pool (1 - 7 of 7)						Rows per 50
	Find Device Pwhe	Device Pool Name	begins with	Find	Clear Filter	+/-
<input type="checkbox"/>	CUBE Site 1	Site 1	CUBE	Eastern Standard Time		
<input type="checkbox"/>	CUBE Site 2	Site 2	CUBE	Eastern Standard Time		
<input type="checkbox"/>	Default	Default	Default	CMLocal		
<input type="checkbox"/>	Site 2	Site 2	Site 2	Eastern Standard Time		
<input type="checkbox"/>	Site1	Site 1	Site 1	Eastern Standard Time		
<input type="checkbox"/>	Unity Connection	Site 1	Site 1	Eastern Standard Time		
<input type="checkbox"/>	Unity Express	Site 2	Site 1	Eastern Standard Time		

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Figure 8 – Device Pools

Device pools are used to define sets of common characteristics for devices. The above screen shows a list of device pools

 Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | Go | admin | About | Logout

System · Call Routing · Media Resources · Voice Mail · Device · Application · User Management

Find and List Cisco Unified CMs

Status
2 records found

Cisco Unified Communications Managers (1 - 2 of 2)		Rows per Page 50	
Cisco Unified Communications Managers	Cisco Unified Communications Manager Name	begins with	Find
Bashful			
Happy			

Figure 9 - Cisco Unified CM's

Two Communications Managers – *Happy* and *Bashful*. Happy serves as both Publisher and Subscriber for Site 1, while Bashful acts as a Subscriber only for Site 2

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

admin | About | Logout

System · Call Routing · Media Resources · Voice Mail · Device · Application · User Management

Find and List Cisco Unified CM Groups

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Status
i 3 records found

Cisco Unified Communications Manager Group (1 - 3 of 3)				Rows per Page 50
Find Cisco Unified Communications Manager Group where Name begins with				Find Clear Filter + -
<input type="checkbox"/>	Name	Auto-registration Cisco Unified CM Group		Copy
<input type="checkbox"/>	Default	false		Edit
<input type="checkbox"/>	Site 1	true		Edit
<input type="checkbox"/>	Site 2	false		Edit

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Figure 10 - Cisco Unified CM Groups

There are two CM Groups in this configuration and there are: Site 1 and Site 2 as shown above

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System · Call Routing · Media Resources · Voice Mail

Find and List Regions

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Status
i 4 records found

Regions (1 - 4 of 4)			
Find Regions where Name begins with			
<input type="checkbox"/>	CUBE		
<input type="checkbox"/>	Default		
<input type="checkbox"/>	Site 1		
<input type="checkbox"/>	Site 2		

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Figure 11 – Regions

There are four Regions defined: Default, CUBE, Site 1, and Site 2

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾

Find and List Physical Locations

 Add New  Select All  Clear All  Delete Selected

Status —
 2 records found

Physical Location (1 - 2 of 2)		
Find Physical Location where Name begins with		
<input type="checkbox"/>	Name ▲	
<input type="checkbox"/>	Site 1	Lake Hearn Lab
<input type="checkbox"/>	Site 2	

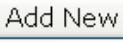
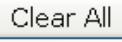
 Add New  Select All  Clear All  Delete Selected

Figure 12 - Physical Locations

Two Locations – Site 1 and Site 2

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified C
admin

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Enterprise Parameters Configuration

Save Set to Default Reset Apply Config

Status
i Status: Ready

Enterprise Parameters Configuration

Parameter Name	Parameter Value	Suggested Value
Synchronization Between Auto Device Profile and Phone Configuration *	True	True
Max Number of Device Level Trace *	12	12
Trace Compression *	Disabled	Disabled
DSCP for Phone-based Services *	default DSCP (000000)	default DSCP (000000)
DSCP for Phone Configuration *	CS3(precedence 3) DSCP (011000)	CS3(precedence 3) DSCP (011000)
DSCP for Cisco CallManager to Device Interface *	CS3(precedence 3) DSCP (011000)	CS3(precedence 3) DSCP (011000)
Connection Monitor Duration *	120	120
Auto Registration Phone Protocol *	SCCP	SCCP
BLF For Call Lists *	Enabled	Disabled
Advertise G.722 Codec *	Enabled	Enabled
Phone Personalization *	Enabled	Disabled
Services Provisioning *	Internal	Internal

Figure 13 - Enterprise Parameters Configuration

Enterprise Parameters Configuration – relates to IP Phone Service

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administrat

Enterprise Parameters Configuration

Save Set to Default Reset Apply Config

Feature Control Policy	
< None >	

CCMAdmin Parameters

Max List Box Items *	250	250
Max Lookup Items *	1000	1000
Enable Dependency Records *	False	False
Auto select DN on any Partition *	False	False

CCMUser Parameters

Show Ring Settings *	False	False
Show Call Forwarding *	Show All Settings	Show All Settings
Show Speed Dial Settings *	True	True
Show Cisco IP Phone Services Settings *	True	True
Show Personal Address Book Settings *	True	True
Show Message Waiting Lamp Policy Settings *	True	True
Show Line Text Label Settings *	False	False
Show Locale for Phone Settings *	True	True
Show Locale for Web Pages Settings *	True	True

Figure 14 - Enterprise Parameter Configuration – Continued

Enterprise Parameters Configuration – relates to IP Phone Services

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration

Enterprise Parameters Configuration

Save Set to Default Reset Apply Config

Show Change Password Option *	True	True
Show Change PIN Option *	True	True
Show Download Plugin Option *	True	True
Show Online Guide Option *	True	True
Show Directory *	True	True
Show Mobility Features Option *	True	True
Show Manager Name in Directory *	True	True
Show User Id in Directory *	True	True
Show Extension in Directory *	True	True
Show LDAP Extension in Directory *	True	True

CDR Parameters		
CDR File Time Interval *	1	1
Cluster ID *	StandAloneCluster	StandAloneCluster

Localization Parameters		
Default Network Locale *	United States	United States
Default User Locale *	English United States	English United States

Figure 15 - Enterprise Parameters Configuration – Continued

Enterprise Parameters Configuration – relates to IP Phone Services

Cisco Unified CM Administration
 For Cisco Unified Communications Solutions

Navigation [Cisco](#)

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Enterprise Parameters Configuration

[Save](#) [Set to Default](#) [Reset](#) [Apply Config](#)

MLPP Parameters

<u>MLPP Domain Identifier</u> *	000000	000000
<u>MLPP Indication Status</u> *	MLPP Indication turned off	MLPP Indication turned off
<u>MLPP Preemption Setting</u> *	No preemption allowed	No preemption allowed
<u>Precedence Alternate Party Timeout</u> *	30	30
<u>Use Standard VM Handling For Precedence Calls</u> *	False	False

Security Parameters

<u>Cluster Security Mode</u> *	0	
<u>CAPF Phone Port</u> *	3804	3804
<u>CAPF Operation Expires in (days)</u> *	10	10
<u>Enable Caching</u> *	False	False

Phone URL Parameters

<u>URL Authentication</u>	http://happy:8080/ccmcp/authenticate.jsp	
<u>URL Directories</u>	http://happy:8080/ccmcp/xmldirectory.jsp	
<u>URL Idle</u>		
<u>URL Idle Time</u>	0	0
<u>URL Information</u>	http://happy:8080/ccmcp/GetTelecasterHelpText.jsp	

Figure 16 - Enterprise Parameters Configuration – Continued

Enterprise Parameters Configuration – relates to IP Phone Services

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk A...

Enterprise Parameters Configuration

URL Messages		
IP Phone Proxy Address		
URL Services	http://happy:8080/ccmcp/getservicesmenu.jsp	
User Search Parameters		
Enable All User Search *	<input type="text" value="True"/>	<input type="button" value="True"/>
User Search Limit *	<input type="text" value="64"/>	64
CCM Web Services Parameters		
Allowed Performance Queries Per Minute *	<input type="text" value="50"/>	50
Allowed Device Queries Per Minute *	<input type="text" value="15"/>	15
Performance Queue Limit *	<input type="text" value="100"/>	100
Allowed CDRonDemand get_file Queries Per Minute *	<input type="text" value="10"/>	10
Allowed CDRonDemand get_file_list Queries Per Minute *	<input type="text" value="20"/>	20
Trace Parameters		
File Close Thread Flag *	<input type="text" value="True"/>	<input type="button" value="True"/>
FileCloseThreadQueueWatermark *	<input type="text" value="100"/>	100

Figure 17 - Enterprise Parameters Configuration – Continued

Enterprise Parameters Configuration – relates to IP Phone Services

Cisco Unified CM Administration
 For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Admin

Enterprise Parameters Configuration

Save Set to Default Reset Apply Config

User Management Parameters

Effective Access Privileges For Overlapping User Groups and roles *	<input type="text" value="Maximum"/>	<input type="button" value="▼ Maximum"/>
---	--------------------------------------	--

Service Manager TCP ports parameters

Service Manager TCP Server communication port number *	<input type="text" value="8888"/>	8888
Service Manager TCP Client communication port number *	<input type="text" value="8889"/>	8889

CRS Application Parameters

Auto Attendant Installed *	false
IPCC Express Installed *	false

Clusterwide Domain Configuration

Organization Top Level Domain	<input type="text"/>
Cluster Fully Qualified Domain Name	<input type="text"/>

Denial-of-Service Protection

Denial-of-Service Protection *	<input type="text" value="True"/>	<input type="button" value="▼ True"/>
--	-----------------------------------	---------------------------------------

TLS Handshake Timer

TLS Handshake Timer *	<input type="text" value="60"/>	60
---------------------------------------	---------------------------------	----

Figure 18 - Enterprise Parameters Configuration – Continued

Enterprise Parameters Configuration – relates to IP Phone Services

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System - Call Routing - Media Resources - Voice Mail - Device - Application

Enterprise Phone Configuration

Save

Status: Status: Ready

Product Specific Configuration Layout

	Param	Over
Back USB Port*	Enabled	<input type="checkbox"/>
Side USB Port*	Enabled	<input type="checkbox"/>
Cisco Camera*	Disabled	<input type="checkbox"/>
Enable/Disable USB Classes	Mass Storage Human Interface Device Audio Class	<input type="checkbox"/>
SDIO *	Disabled	<input type="checkbox"/>
Bluetooth *	Enabled	<input type="checkbox"/>
Wifi *	Enabled	<input type="checkbox"/>
Bluetooth Profiles*	Headset Human Interface Device	<input type="checkbox"/>
Join And Direct Transfer Policy*	Same line, across line enable	<input type="checkbox"/>

Figure 19 - Enterprise Phone Configuration

Enterprise Phone Configuration

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk A

Find and List SIP Trunk Security Profiles

Status
(i) 2 records found

SIP Trunk Security Profile (1 - 2 of 2)	
<input type="checkbox"/>	Name <input type="button" value="begins with"/> <input type="button" value="Find"/> <input type="button" value="Clear Filter"/> <input type="button" value="+"/> <input type="button" value="-"/>
<input type="checkbox"/>	Description
<input type="checkbox"/>	COX Business Security SIP Trunk Profile
<input type="checkbox"/>	Non Secure SIP Trunk Profile

Figure 20 - SIP Trunk Security Profiles

We Defined a Cox Business Security Profile for SIP Trunking

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Manage

Find and List Route Groups

Status
(i) 3 records found

Route Group (1 - 3 of 3)	
<input type="checkbox"/>	Name <input type="button" value="begins with"/> <input type="button" value="Find"/> <input type="button" value="Clear Filter"/> <input type="button" value="+"/> <input type="button" value="-"/>
<input type="checkbox"/>	Site_1
<input type="checkbox"/>	Site_1_Private
<input type="checkbox"/>	Site_2

Figure 21 - Two Route Groups

Defined are two route groups

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified
admin

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Route Lists

+ Add New Select All Clear All Delete Selected Reset Selected Apply Config to Selected

Status
3 records found

Route List (1 - 3 of 3)					Rows
Find Route List where Name begins with					
<input type="checkbox"/>	Name	Description	Enabled	Status	
<input type="checkbox"/>	Site_1	Calls from Site 1	true	Registered with 192.168.100.20	
<input type="checkbox"/>	Site_1_Private	Outbound calls from site 1 to be marked private	true	Registered with 192.168.100.20	
<input type="checkbox"/>	Site_2	Calls from Site 2	true	Registered with 192.168.100.20	

Add New Select All Clear All Delete Selected Reset Selected Apply Config to Selected

Figure 22 - Route Lists

Two site list are defined. One from Site 1 to Site 2 and the other from Site 2 to Site 1

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Admin
admin | About

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Route Patterns

+ Add New Select All Clear All Delete Selected

Status
27 records found

Route Patterns (1 - 27 of 27)					Rows per Page
Find Route Patterns where Pattern begins with					
<input type="checkbox"/>	Pattern	Description	Partition	Route Filter	Associated Device
<input type="checkbox"/>	*67.011	Blocked International Calls from Site 1	International Site_1		Site_1
<input type="checkbox"/>	*67.1[2-9]XX[2-9]XXXXXX	Long Distance Calls from Site 1	Long Distance Site_1		Site_1_Private
<input type="checkbox"/>	*67.404[2-9]XXXXXX	Local 10 digit calls from Site 1	Local Site_1		Site_1_Private
<input type="checkbox"/>	*67.6782391	Blocked bl International Calls from Site 1	Local Site_1		Site_1
<input type="checkbox"/>	*67.678[2-9]XXXXXX	Local on-net 10 digit calls from Site 1	Local Site_1		Site_1_Private
<input type="checkbox"/>	9.011!	International Calls from Site 2	International Site_2		Site_2
<input type="checkbox"/>	9.011!	International Calls from Site 1	International Site_1		Site_1
<input type="checkbox"/>	9.011!#	International Calls from Site 2	International Site_2		Site_2
<input type="checkbox"/>	9.011!#	International Calls from Site 1	International Site_1		Site_1
<input type="checkbox"/>	9.101XXXX1[2-9]XX[2-9]XXXXXX	Site 2 LD Access Codes	Local Site_2		Site_2
<input type="checkbox"/>	9.101XXXX1[2-9]XX[2-9]XXXXXX	Site 1 LD Access Codes	Local Site_1		Site_1
<input type="checkbox"/>	9.1[2-9]XX[2-9]XXXXXX	Long Distance Calls from Site 2	Long Distance Site_2		Site_2
<input type="checkbox"/>	9.1[2-9]XX[2-9]XXXXXX	Long Distance Calls from Site 1	Long Distance Site_1		Site_1
<input type="checkbox"/>	9.404[2-9]XXXXXX	Local 10 digit calls from Site 2	Local Site_2		Site_2

Figure 23 - Route Patterns

Defined Route patterns examples include: Local, Long Distance, International, etc.

<input type="checkbox"/> 9.678[2-9]XXXXXX	Local 10 digit calls from Site 2	Local Site 2	Site_2
<input type="checkbox"/> 9.678[2-9]XXXXXX	Local 10 digit calls from Site 1	Local Site 1	Site_1
<input type="checkbox"/> 9.703[2-9]XXXXXX	LD 10 digit calls from Site 2	Local Site 2	Site_2
<input type="checkbox"/> 9.703[2-9]XXXXXX	LD 10 digit calls from Site 1	Local Site 1	Site_1
<input type="checkbox"/> 9.770[2-9]XXXXXX	Local 10 digit calls from Site 2	Local Site 2	Site_2
<input type="checkbox"/> 9.770[2-9]XXXXXX	Local 10 digit calls from Site 1	Local Site 1	Site_1
<input type="checkbox"/> 9.911	911 Access for Site 1	911Site1	Site_1
<input type="checkbox"/> 9.911	911 Access for Site 2	911Site2	Site_2
<input type="checkbox"/> 9.[2-8]11	N11 Access for Site 2	N11 Site 2	Site_2
<input type="checkbox"/> 9.[2-8]11	N11 Access for Site 1	N11 Site 1	Site_1
<input type="checkbox"/> 9.[2-9]XXXXXX	Local 7 digit calls from Site 1	Local Site 1	Site_1
<input type="checkbox"/> 9.[2-9]XXXXXX	Local 7 digit calls from Site 2	Local Site 2	Site_2

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Figure 24 - Route Patterns

Defined Route Patterns include: Local, Long Distance, International, etc. – Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Manager

Find and List Line Groups

[+ Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Status —
(i) 6 records found

Line Groups (1 - 6 of 6)	
Find Line Groups where Line Group Name <input type="text" value="begins with"/> ▼ Find Clear Filter + =	
Line Group Name ▲	
<input type="checkbox"/>	CiscoUM1
<input type="checkbox"/>	HuntTest
<input type="checkbox"/>	Site_1_Broadcast
<input type="checkbox"/>	Site_1_Hunt
<input type="checkbox"/>	Site_2_Broadcast
<input type="checkbox"/>	Site_2_Hunt

[Add New](#) [Select All](#) [Clear All](#) [Delete Selected](#)

Figure 25 - Line Groups

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾

Find and List Hunt Lists

Add New **Select All** **Clear All** **Delete Selected** **Reset Selected** **Apply Config to Selected**

Status **(i) 6 records found**

Hunt List (1 - 6 of 6)				
Find Hunt List where Name begins with Find Clear Filter				
	Name ▲	Description	Enabled	Status
<input type="checkbox"/>	Hunt Test List	Hunt Test List	true	Registered with 192.168.100.20
<input type="checkbox"/>	Site_1_Broadcast	Site 1 Broadcast Hunt	true	Registered with 192.168.100.20
<input type="checkbox"/>	Site_1_Hunt	Site 1 Hunt Top Down	true	Registered with 192.168.100.20
<input type="checkbox"/>	Site_2_Broadcast	Site 2 Broadcast Hunt	true	Registered with 192.168.100.20
<input type="checkbox"/>	Site_2_Hunt	Site 2 Top Down Hunt	true	Registered with 192.168.100.20
<input type="checkbox"/>	Unity	Unity Ports	true	Registered with 192.168.100.20

Add New **Select All** **Clear All** **Delete Selected** **Reset Selected** **Apply Config to Selected**

Figure 26 - Hunt Lists

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾

Find and List Hunt Pilots

Add New **Select All** **Clear All** **Delete Selected**

Status **(i) 5 records found**

Hunt Pilots (1 - 5 of 5)				
Find Hunt Pilots where Pattern begins with Find Clear Filter				
	Pattern ▲	Description	Partition	Route Filter
<input type="checkbox"/>	1005	Site 1 Top Down Hunt Pilot	Internal	Site_1_Hunt
<input type="checkbox"/>	1006	Site 1 Broadcast Hunt Pilot	Internal	Site_1_Broadcast
<input type="checkbox"/>	2005	Site 2 Top Down Hunt Pilot	Internal	Site_2_Hunt
<input type="checkbox"/>	2006	Site 2 Broadcast Hunt Pilot	Internal	Site_2_Broadcast
<input type="checkbox"/>	3000	Unity Connection	Internal	Unity

Add New **Select All** **Clear All** **Delete Selected**

Figure 27 - Hunt Pilots Numbers

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System Call Routing Media Resources Voice

Find and List Time Periods

Add New Select All Clear All Delete Selected

Status
 1 records found

Time Period (1 - 1 of 1)

	Name	where
<input type="checkbox"/>	All the time	Name

Add New Select All Clear All Delete Selected

Figure 28 - Time Period

Defined Time Period for services, for testing we selected All the time.

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management

Find and List Partitions

Add New Select All Clear All Delete Selected

Status

14 records found

Partition (1 - 14 of 14)		
Find Partition where Name begins with <input type="button" value="Find"/> <input type="button" value="Clear Filter"/>		
	Partition Name ^	
<input type="checkbox"/>	911Site1	911 Calls from Site 1
<input type="checkbox"/>	911Site2	911 Calls from Site 2
<input type="checkbox"/>	Feature	Calling Features
<input type="checkbox"/>	Internal	IP Phones and internal devices
<input type="checkbox"/>	International Site 1	International Calls from Site 1
<input type="checkbox"/>	International Site 2	International Calls from Site 2
<input type="checkbox"/>	Local Site 1	Local Calls from Site 1
<input type="checkbox"/>	Local Site 2	Local Calls from Site 2
<input type="checkbox"/>	Long Distance Site 1	Long distance Calls
<input type="checkbox"/>	Long Distance Site 2	Long distance Calls from Site 2
<input type="checkbox"/>	N11 Site 1	N11
<input type="checkbox"/>	N11 Site 2	N11 Site 2
<input type="checkbox"/>	UnityPorts	Unity Device Ports
<input type="checkbox"/>	Unreachable	Partition that is not in any CSS

Figure 29 - Partitions

 **Cisco Unified CM Administration**
For Cisco Unified Communications Solutions

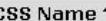
System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Ma

Find and List Calling Search Spaces

 Add New  Select All  Clear All  Delete Selected

Status

 13 records found

Calling Search Space (1 - 13 of 13)		
Find Calling Search Space where <input type="text" value="CSS Name"/> begins with <input type="button" value="▼"/>		
	CSS Name 	
<input type="checkbox"/>	COS1-Site1	Internal Only for Site 1
<input type="checkbox"/>	COS1-Site2	Internal Only for Site 1
<input type="checkbox"/>	COS2-Site1	Internal 911 and Local for Site 1
<input type="checkbox"/>	COS2-Site2	Internal 911 and Local for Site 2
<input type="checkbox"/>	COS3-Site1	Internal 911 Local and LD for Site 1
<input type="checkbox"/>	COS3-Site2	Internal 911 Local and LD for Site 2
<input type="checkbox"/>	COS4-Site1	Internal 911 Local and LD for Site 1
<input type="checkbox"/>	COS4-Site2	Internal 911 Local and LD for Site 2
<input type="checkbox"/>	Gateway Site 1	Inbound Calls from the Voice Gateway for Site 1
<input type="checkbox"/>	Gateway Site 2	Inbound Calls from the Voice Gateway for Site 2
<input type="checkbox"/>	Intercept-Site1	911 only access for Site 1
<input type="checkbox"/>	Intercept-Site2	911 only access for Site 2
<input type="checkbox"/>	UnityPorts	CSS for use with Unity CTI Ports

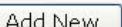
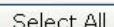
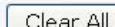
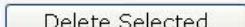
 Add New  Select All  Clear All  Delete Selected

Figure 30 - Calling Search Spaces

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Admin

Find and List Client Matter Codes

Status — (i) 2 records found

Client Matter Code (1 - 2 of 2)		
Find Client Matter Code where Client Matter Code begins with <input type="text" value=""/> <input type="button" value="Find"/> <input type="button" value="Clear Filter"/> <input style="margin-left: 10px;" type="button" value="+"/> <input type="button" value="-"/>		
	Client Matter Code ^	
<input type="checkbox"/>	1234	Account Code
<input type="checkbox"/>	5555	CMC

Figure 31 - Client Matter Codes

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Admin

Find and List Forced Authorization Code

Status — (i) 1 records found

Forced Authorization Code (1 - 1 of 1)		
Find Forced Authorization Code where Authorization Code Name begins with <input type="text" value=""/> <input type="button" value="Find"/> <input type="button" value="Clear Filter"/> <input style="margin-left: 10px;" type="button" value="+"/> <input type="button" value="-"/>		
	Authorization Code Name ^	
<input type="checkbox"/>	Authcode	Authorization Code
<input type="checkbox"/>	5678	0

Figure 32 - Forced Authorization Code

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾

Find and List Translation Patterns

Add New Select All Clear All Delete Selected

Status —
  2 records found

Translation patterns (1 - 2 of 2)

Find Translation patterns where **Pattern** begins with Find Clear Filter

	Translation Pattern ^	Partition	Description
<input type="checkbox"/>	 0	Internal	Operator
<input type="checkbox"/>	 10XX	Internal	Route all to Voicemail

Add New Select All Clear All Delete Selected

Figure 33 - Translation Patterns

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk ▾

Find and List Call Park Numbers

Add New Select All Clear All Delete Selected

Status —
  2 records found

Call Park Numbers (1 - 2 of 2)

Find Call Park Numbers where **Number** begins with Find Clear Filter

	Call Park Number ^	Partition	Description
<input type="checkbox"/>	1008	Internal	Happy
<input type="checkbox"/>	2008	Internal	Bashful

Add New Select All Clear All Delete Selected

Figure 34 - Call Park Numbers

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go
admin | About | Logout

System - Call Routing - Media Resources - Voice Mail - Device - Application - User Management - Bulk Administration - Help -

Find and List Call Pickup Groups

Add New **Select All** **Clear All** **Delete Selected**

Status -
① 2 records found

Call Pickup Group (1 - 2 of 2)						Rows per Page 50
Find Call Pickup Group where Call Pickup Group Name begins with		Call Pickup Group Number	Partition	Description	Copy	
<input type="checkbox"/>	PickupGroup	1015	Local Site 1	Local Site 1		
<input type="checkbox"/>	PickupGroup1	1016	Local Site 2	Local Site 2		

Add New **Select All** **Clear All** **Delete Selected**

Figure 35 - Call Pickup Group

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go
admin | About | Logout

System - Call Routing - Media Resources - Voice Mail - Device - Application - User Management - Bulk Administration - Help -

Find and List Directory Numbers

Add New **Select All** **Clear All** **Delete Selected**

Status -
① 66 records found

Directory Number (1 - 50 of 66)						Rows per Page 50
Find Directory Number where Directory Number begins with		Partition	Description	Copy		
<input type="checkbox"/>	1001	Unreachable	James Dean			
<input type="checkbox"/>	1001	Feature	James Dean			
<input type="checkbox"/>	1001	Internal	James Dean			
<input type="checkbox"/>	1002	Internal	Elvis Presley			
<input type="checkbox"/>	1002	Unreachable	Elvis Presley			
<input type="checkbox"/>	1003	Internal	Elvis Presley			
<input type="checkbox"/>	1004	Local Site_1				
<input type="checkbox"/>	1004	Internal	ATA001DA2EA6613			
<input type="checkbox"/>	1009	Internal				
<input type="checkbox"/>	1010	Internal	Site 1 Auto Attendant			
<input type="checkbox"/>	1011	Internal				
<input type="checkbox"/>	1050					
<input type="checkbox"/>	1051					
<input type="checkbox"/>	2000	UnityPorts				

Figure 36 - Directory Numbers

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco U
adm

System Call Routing Media Resources Voice Mail Device Application User Management

Route Plan Report

Related Links: View

Status: 132 records found

Route Plan Report (1 - 50 of 132) Rows:

Find: All Patterns Route Plan where Pattern/Directory Number begins wi

	Pattern/Directory Number	Partition	Type	Route Detail
	*67.0111	International Site_1	Route Pattern	Site_1 Site_1 Grumpy (All ports) Site_2 Dopey (All ports)
	*67.1[2-9]XX[2-9]XXXXXX	Long Distance Site_1	Route Pattern	Site_1_Private Site_1_Private Gurmpy_Private (All ports)
	*67.404[2-9]XXXXXX	Local Site_1	Route Pattern	Site_1_Private Site_1_Private

Figure 37 - Route Plan Report

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco U
adm

System Call Routing Media Resources Voice Mail Device Application User Management

Route Plan Report

Related Links: View

	*67.6782391	Local Site_1	Route Pattern	Site_1 Site_1 Grumpy (All ports) Site_2 Dopey (All ports)
	*67.678[2-9]XXXXXX	Local Site_1	Route Pattern	Site_1_Private Site_1_Private Gurmpy_Private (All ports)
	Q 1001	Internal	Translation Pattern	SEP0023EBC88963 HuntTest Site_1_Hunt Site_1_Broadcast
	1001	Unreachable	Directory Number	
	1001	Feature	Directory Number	
	1002	Internal	Directory Number	SEP0023EBC78105 HuntTest Site_1_Hunt Site_1_Broadcast
	1002	Unreachable	Directory Number	
	1002	Unreachable	Directory Number	

Figure 38 - Route Plan Report - Continued

Cisco Unified CM Administration				Related Links		
System	Call Routing	Media Resources	Voice Mail	Device	Application	User Ma
Route Plan Report						
	1003	Internal	Directory Number		 SEP0023EBC78105  HuntTest  Site_1_Hunt	
	1004	Local Site 1	Directory Number		 AN1DA2EA6613000	
	1004	Internal	Directory Number		 RossParkerIPC	
	1004	Internal	Directory Number			
	1005	Internal	Hunt Pilot		 Site_1_Hunt  Site_1_Hunt  1001, Internal  1002, Internal  1003, Internal	
	1006	Internal	Hunt Pilot		 Site_1_Broadcast  Site_1_Broadcast  1001, Internal  1002, Internal  2001, Internal	
	1008	Internal	Call Park			
	1009	Internal	Directory Number			
	1010	Internal	Directory Number		 Unity_AA_Pilot	
	1011	Internal	Directory Number			
	1015	Local Site 1	Call Pickup Group			

Figure 39 - Route Plan Report - Continued

Cisco Unified CM Administration				Related Links		
System	Call Routing	Media Resources	Voice Mail	Device	Application	User Ma
Route Plan Report						
	1016	Local Site 2	Call Pickup Group		 SEP0026CB3B281A  HuntTest  Site_2_Hunt  Site_1_Broadcast  Site_2_Broadcast	
	1050		Directory Number			
	1051		Directory Number			
	10XX	Internal	Translation Pattern			
	2000	UnityPorts	Directory Number			
	2001	Internal	Directory Number		 SEP0023EBC78105  HuntTest  Site_2_Hunt  Site_1_Broadcast  Site_2_Broadcast	
	2001	Internal	Directory Number		 SEP0026CB3B281A  HuntTest  Site_2_Hunt  Site_1_Broadcast  Site_2_Broadcast	
	2001	Local Site 1	Directory Number			
	2001	Local Site 2	Directory Number			
	2001	UnityPorts	Directory Number			
	2001	911Site2	Directory Number			
	2001	Feature	Directory Number			
	2002	UnityPorts	Directory Number			
	2002	Unreachable	Directory Number			

Figure 40 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System Call Routing Media Resources Voice Mail Device Application User Management

Route Plan Report

					Related Links
	2003	UnityPorts	Directory Number		
	2003		Directory Number		
	2003	Internal	Directory Number	Site_2_Hunt Site_2_Broadcast	
	2003	Feature	Directory Number		
	2003	N11 Site 1	Directory Number		
	2004	UnityPorts	Directory Number		
	2005	UnityPorts	Directory Number		
	2005	Internal	Hunt Pilot	Site_2_Hunt Site_2_Hunt 2001, Internal 2002, Internal 2003, Internal	
	2006	UnityPorts	Directory Number		
	2006	Internal	Hunt Pilot	Site_2_Broadcast Site_2_Broadcast 2001, Internal 2002, Internal 2003, Internal	
	2007	UnityPorts	Directory Number		

Figure 41 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified Communications Solutions admin

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Route Plan Report

Status: 132 records found

Route Plan Report (51 - 100 of 132)					Row
Find	All Patterns	Route Plan Report where Pattern/Directory Number begins with	Pattern/Directory Number	Type	Route Details
<input type="checkbox"/>	2008	Internal	Call Park		
<input type="checkbox"/>	2010	Internal	Directory Number	UnityX_AA_Pilot	
<input type="checkbox"/>	2011	Internal	Directory Number	SEP0026CB3B281A	
<input type="checkbox"/>	2011	Local Site 1	Directory Number		
<input type="checkbox"/>	2011		Directory Number		
<input type="checkbox"/>	2022		Attendant Console	test	
<input type="checkbox"/>	2392	Internal	Directory Number	SEP001BD4331E25	
<input type="checkbox"/>	3000	UnityPorts	Directory Number		
<input type="checkbox"/>	3000	Internal	Hunt Pilot	Unity CiscoUM1 6000, UnityPorts 6001, UnityPorts 6002, UnityPorts	

Figure 42 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco ac

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help

Route Plan Report

Related Links: V

	3001	Internal	Message Waiting
	3002	Internal	Message Waiting
	4000		Directory Number
	4000	Internal	Directory Number
	5000	Internal	Directory Number
	5000	UnityPorts	Directory Number
	5001	UnityPorts	Directory Number
	5001	Internal	Directory Number
	5002	Internal	Directory Number
	5002	UnityPorts	Directory Number
	5003	Internal	Directory Number
	5003	UnityPorts	Directory Number
	5004	UnityPorts	Directory Number
	5004	Internal	Directory Number
	5005	Internal	Directory Number
	5005	UnityPorts	Directory Number
	5006	Internal	Directory Number
	5006	UnityPorts	Directory Number
	5007	UnityPorts	Directory Number
	5007	Internal	Directory Number
	5008		Directory Number
	5009		Directory Number
	5010		Directory Number
	5011		Directory Number
	5012		Directory Number
	5013		Directory Number
	5014		Directory Number
	5015		Directory Number
	5016		Directory Number
	5017		Directory Number
	5018		Directory Number
	5019		Directory Number
	5020		Directory Number
	5021		Directory Number
	5022		Directory Number
	5023		Directory Number

Figure 43 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco ac

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration

Route Plan Report

Related Links: V

	3001	Internal	Message Waiting
	3002	Internal	Message Waiting
	4000		Directory Number
	4000	Internal	Directory Number
	5000	Internal	Directory Number
	5000	UnityPorts	Directory Number
	5001	UnityPorts	Directory Number
	5001	Internal	Directory Number
	5002	Internal	Directory Number
	5002	UnityPorts	Directory Number
	5003	Internal	Directory Number
	5003	UnityPorts	Directory Number
	5004	UnityPorts	Directory Number
	5004	Internal	Directory Number
	5005	Internal	Directory Number
	5005	UnityPorts	Directory Number
	5006	Internal	Directory Number
	5006	UnityPorts	Directory Number
	5007	UnityPorts	Directory Number
	5007	Internal	Directory Number
	5008		Directory Number
	5009		Directory Number
	5010		Directory Number
	5011		Directory Number
	5012		Directory Number
	5013		Directory Number
	5014		Directory Number
	5015		Directory Number
	5016		Directory Number
	5017		Directory Number
	5018		Directory Number
	5019		Directory Number
	5020		Directory Number
	5021		Directory Number
	5022		Directory Number
	5023		Directory Number

Figure 44 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾

Route Plan Report

				Related Links
6001	UnityPorts	Voice Mail Port	CiscoUM1-VI2	
6002	UnityPorts	Voice Mail Port	CiscoUM1-VI3	
6003	UnityPorts	Voice Mail Port	CiscoUM1-VI4	
6004	UnityPorts	Voice Mail Port	CiscoUM1-VI5	
6005	UnityPorts	Voice Mail Port	CiscoUM1-VI6	
6006	UnityPorts	Voice Mail Port	CiscoUM1-VI7	
6007	UnityPorts	Voice Mail Port	CiscoUM1-VI8	
6008	UnityPorts	Voice Mail Port	CiscoUM1-VI9	
6009	UnityPorts	Voice Mail Port	CiscoUM1-VI10	
6010	UnityPorts	Voice Mail Port	CiscoUM1-VI11	
6011	UnityPorts	Voice Mail Port	CiscoUM1-VI12	
6012	UnityPorts	Voice Mail Port	CiscoUM1-VI13	
6013	UnityPorts	Voice Mail Port	CiscoUM1-VI14	
6014	UnityPorts	Voice Mail Port	CiscoUM1-VI15	
6015	UnityPorts	Voice Mail Port	CiscoUM1-VI16	
6016	UnityPorts	Voice Mail Port	CiscoUM1-VI17	
6017	UnityPorts	Voice Mail Port	CiscoUM1-VI18	
6018	UnityPorts	Voice Mail Port	CiscoUM1-VI19	
6019	UnityPorts	Voice Mail Port	CiscoUM1-VI20	
6020	UnityPorts	Voice Mail Port	CiscoUM1-VI21	

Figure 45 - Route Plan Report – Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM

admin |

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Route Plan Report

Related Links: [View i](#)

Status —
(1) 132 records found

Route Plan Report (101 - 132 of 132)

Rows per Find

Find All Patterns

Select item or enter search text

	Pattern/Directory Number	Partition	Type	Route Detail
6021	UnityPorts	Voice Mail Port	CiscoUM1-VI22	
6022	UnityPorts	Voice Mail Port	CiscoUM1-VI23	
6023	UnityPorts	Voice Mail Port	CiscoUM1-VI24	
6782391004	Internal	Directory Number	CiscoUM1-VI22	
6782391007	Local Site 1	Directory Number	CiscoUM1-VI23	
6782391008	Internal	Directory Number	CiscoUM1-VI24	
6782391009	Internal	Directory Number	CiscoUM1-VI22	
6782391011	Internal	Directory Number	CiscoUM1-VI23	
6782392001	Local Site 1	Directory Number	CiscoUM1-VI24	
6782392001	Local Site 1	Directory Number	CiscoUM1-VI22	
9.011!	International Site 2	Route Pattern	 Site_2  Site_2  Dopey (All ports)	

Figure 46 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation | Cisco Unified C
admin

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Route Plan Report

			Related Links:
	9.011!	International Site_1	Route Pattern
	9.011!#	International Site_2	Route Pattern
	9.011!#	International Site_1	Route Pattern
	9.101XXXX1[2-9]XX[2-9]XXXXXX	Local Site_1	Route Pattern

Related Links: View

- Site_1
 - SIP
 - Grumpy (All ports)
- Site_1
 - Site_1
 - SIP
 - Grumpy (All ports)
- Site_2
 - SIP
 - Dopey (All ports)
- Site_2
 - Site_2
 - SIP
 - Dopey (All ports)
- Site_1
 - Site_1
 - Grumpy (All ports)
- Site_1
 - Site_1
 - Grumpy (All ports)
- Site_2
 - SIP
 - Dopey (All ports)
- Site_1
 - Site_1
 - SIP
 - Dopey (All ports)
- Site_1
 - Site_1
 - Grumpy (All ports)
- Site_2
 - SIP
 - Dopey (All ports)

Figure 47 - Route Plan Report – Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation | Cisco Unified C
admin

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Route Plan Report

			Related Links:
	9.1[2-9]XX[2-9]XXXXXX	Long Distance Site_1	Route Pattern
	9.1[2-9]XX[2-9]XXXXXX	Long Distance Site_2	Route Pattern
	9.404[2-9]XXXXXX	Local Site_2	Route Pattern
	9.404[2-9]XXXXXX	Local Site_1	Route Pattern

Related Links: View

- Site_2
 - SIP
 - Dopey (All ports)
- Site_1
 - Site_1
 - SIP
 - Grumpy (All ports)
- Site_2
 - Site_2
 - SIP
 - Grumpy (All ports)
- Site_2
 - Site_2
 - SIP
 - Dopey (All ports)
- Site_1
 - Site_1
 - Grumpy (All ports)
- Site_2
 - Site_2
 - SIP
 - Dopey (All ports)
- Site_1
 - Site_1
 - SIP
 - Dopey (All ports)
- Site_1
 - Site_1
 - Grumpy (All ports)
- Site_2
 - SIP
 - Dopey (All ports)

Figure 48 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration admin

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Route Plan Report

Route Plan Report				Related Links:
	9.678[2-9]XXXXXX	Local Site 1	Route Pattern	Dopey (All ports) Site_1 Site_1 Grumpy (All ports) Site_2 Dopey (All ports)
	9.678[2-9]XXXXXX	Local Site 2	Route Pattern	Site_2 Site_2 Dopey (All ports) Site_1 Grumpy (All ports)
	9.703[2-9]XXXXXX	Local Site 1	Route Pattern	Site_1 Site_1 Grumpy (All ports) Site_2 Dopey (All ports)
	9.703[2-9]XXXXXX	Local Site 2	Route Pattern	Site_2 Site_2 Dopey (All ports) Site_1 Grumpy (All ports)
	9.770[2-9]XXXXXX	Local Site 1	Route Pattern	Site_1 Site_1

Figure 49 - Route Plan Report – Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration admin

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Route Plan Report

			Route Pattern	Related Links:
	9.911	911Site1		Site_1 Site_1 Grumpy (All ports)
	9.[2-8]11	N11 Site_2		Site_2 Site_2 Dopey (All ports)
	9.[2-8]11	N11 Site_1		Site_1 Site_1 Grumpy (All ports)
	9.[2-9]XXXXXX	Local Site_2		Site_2 Site_2 Dopey (All ports)
	9.[2-9]XXXXXX	Local Site_1		Site_1 Site_1 Grumpy (All ports)

Figure 50 - Route Plan Report - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Voice Mail Ports

Add New	Select All	Clear All	Delete Selected	Reset Selected	Apply Config to Selected					
<input type="checkbox"/>	CiscoUM1-V117	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6016	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V118	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6017	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V119	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6018	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V12	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6001	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V120	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6019	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V121	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6020	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V122	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6021	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V123	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6022	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V124	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6023	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V13	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6002	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V14	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6003	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V15	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6004	UnityPorts	Registered with 192.168.100.20	192.168.100.30	
<input type="checkbox"/>	CiscoUM1-V16	Unity Connection	Unity Connection	Non Secure Voice Mail Port	UnityPorts	6005	UnityPorts	Registered with 192.168.100.20	192.168.100.30	

Figure 51 - Cisco Unity Voice Mail Ports Setup

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go
admin | About | Logout

System - Call Routing - Media Resources - Voice Mail - Device - Application - User Management - Bulk Administration - Help -

Find and List Message Waiting Numbers

Add New **Select All** **Clear All** **Delete Selected**

Status -
① 2 records found

Message Waiting Numbers (1 - 2 of 2)						Rows per Page 50
Find Message Waiting Numbers		where Directory Number begins with	and where Message Waiting Indicator is Both			
<input type="checkbox"/>		3001	On	Internal	COS1-Site1	
<input type="checkbox"/>		3002	Off	Internal	COS1-Site1	

Add New **Select All** **Clear All** **Delete Selected**

Figure 52 - Message Waiting Numbers

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System - Call Routing - Media Resources - Voice Mail - Device - Application - User Management - Bulk Adminis

Find and List Voice Mail Pilots

Add New **Select All** **Clear All** **Delete Selected**

Status -
① 4 records found

Voice Mail Pilot (1 - 4 of 4)				
Find Voice Mail Pilot where Voice Mail Pilot Number begins with				
<input type="checkbox"/>		Default		
<input type="checkbox"/>		No Voice Mail		
<input checked="" type="checkbox"/>		3000	Unity Pilot	UnityPorts
<input type="checkbox"/>		4000	Unity Express Pilot	UnityPorts

Add New **Select All** **Clear All** **Delete Selected**

Figure 53 - Voice Mail Pilot

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go
admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Voice Mail Profiles

Status —
 3 records found

Voice Mail Profile (1 - 3 of 3)						Rows per Page 50
	Name	Description	Pilot	Calling Search Space	Copy	
<input type="checkbox"/>	NoVoiceMail	No Voice Mail				
<input checked="" type="checkbox"/>	Unity_Connection	Default voice messaging profile	3000	UnityPorts		
<input type="checkbox"/>	Unity_Express	Cisco Unity Express	4000	UnityPorts		

Figure 54 - Voice Mail Profile

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go
admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List CTI Route Points

Status —
 4 records found

CTI Route Point (1 - 4 of 4)								Rows per Page 50	
	Device Name	Description	Device Pool	Calling Search Space	Partition	Extension	Status	IP Address	Copy
<input type="checkbox"/>	QUE_4000	Unity Express Pilot Number	Unity Express		Internal	4000	Unknown	Unknown	
<input type="checkbox"/>	UnityX_AA_Pilot	Unity Express AA Pilot	Unity Express		Internal	2010	Unknown	Unknown	
<input type="checkbox"/>	Unity_AA_Pilot	Unity Connection AA Pilot	Unity Connection		Internal	1010	Unknown	Unknown	
<input type="checkbox"/>	test		Unity Express			2022	Unknown	Unknown	

Figure 55 - CTI Route Points

The CTI Route has three route points listed, they are Unity Express (Voice Mail), Unity Express Auto-Attendant, and Unity Connection Auto-Attendant.

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Phones Related Links: Actively Logged In Device Report Go

+ Add New Select All Clear All Delete Selected Reset Selected Apply Config to Selected

Status —
16 records found

Phone (1 - 16 of 16) Rows per Page 50

Find Phone where Device Name begins with Find Clear Filter + =
Select item or enter search text

	Device Name(Line) *	Description	Device Pool	Device Protocol	Status	IP Address	Copy	Super Copy
<input type="checkbox"/>	AN1DA2EA6613000	AN1DA2EA6613000	Site_1	SCCP	Unknown	Unknown		
<input type="checkbox"/>	AN1DA2EA6613001	AN1DA2EA6613001	Site_1	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5000	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5001	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5002	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5003	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5004	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5005	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5006	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	CUE_5007	Unity Express Port	Site_2	SCCP	Unknown	Unknown		
<input type="checkbox"/>	RossParkerIPC	Ross Test Phone	Site_1	SCCP	Unknown	Unknown		
<input type="checkbox"/>	SEP001BD4331E25	Test Phone Site 2 Cisco UCM	Site_2	SCCP	Unknown	Unknown		

Figure 56 - Detail Telephone Status Page

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Trunks Related Links: Actively Logged In Device Report Go

+ Add New Select All Clear All Delete Selected Reset Selected Apply Config to Selected

Status —
3 records found

Trunks (1 - 3 of 3) Rows per Page 50

Find Trunks where Device Name begins with Find Clear Filter + =
Select item or enter search text

	Name *	Description	Calling Search Space	Device Pool	Route Pattern	Partition	Route Group	Priority	Trunk Type	SIP Trunk Security Profile
<input type="checkbox"/>	Dopey	Site 2 CUBE	Gateway Site 2	CUBE Site 2			Site_2	1	SIP Trunk	Non Secure SIP Trunk Profile
<input type="checkbox"/>	Grumpy	Site 1 SIP	Gateway Site 1	CUBE Site 1			Site_1	1	SIP Trunk	Non Secure SIP Trunk Profile
<input type="checkbox"/>	Gurumpy_Private	Site 1 calls marked as private	Gateway Site 1	CUBE Site 1			Site_1 Private	1	SIP Trunk	Non Secure SIP Trunk Profile

Add New Select All Clear All Delete Selected Reset Selected Apply Config to Selected

Figure 57 - SIP Trunks

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | Go | admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List IP Phone Services

+ Add New | Select All | Clear All | Delete Selected

Status —
1 record found

IP Phone Service (1 - 7 of 7)			Rows per Page 50
Find IP Phone Service where IP Phone Service begins with		Find Clear Filter	
	IP Phone Service	begins with	
	Corporate Directory	Corporate Directory	true
	Intercom Calls	Intercom Calls	false
	Missed Calls	Missed Calls	true
	Personal Directory	Personal Directory	true
	Placed Calls	Placed Calls	true
	Received Calls	Received Calls	true
	Voicemail	Voicemail	true

Add New | Select All | Clear All | Delete Selected

Figure 58 - IP Phone Services

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | Go | admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List SIP Profiles

+ Add New | Select All | Clear All | Delete Selected

Status —
2 records found

SIP Profile (1 - 2 of 2)			Rows per Page 50
Find SIP Profile where Name begins with		Find Clear Filter	
	Name	begins with	
	COX Business SIP Profile	COX Business SIP Profile	
	Standard SIP Profile	Default SIP Profile	

Add New | Select All | Clear All | Delete Selected

Figure 59 - SIP Profiles
 COX Business SIP Profile

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration | Go | admin | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Common Device Configurations

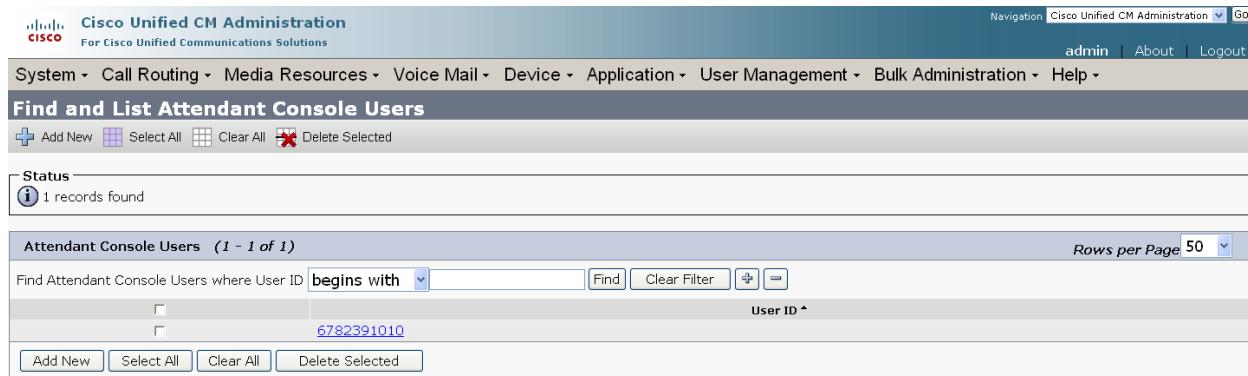
+ Add New | Select All | Clear All | Delete Selected

Status —
2 records found

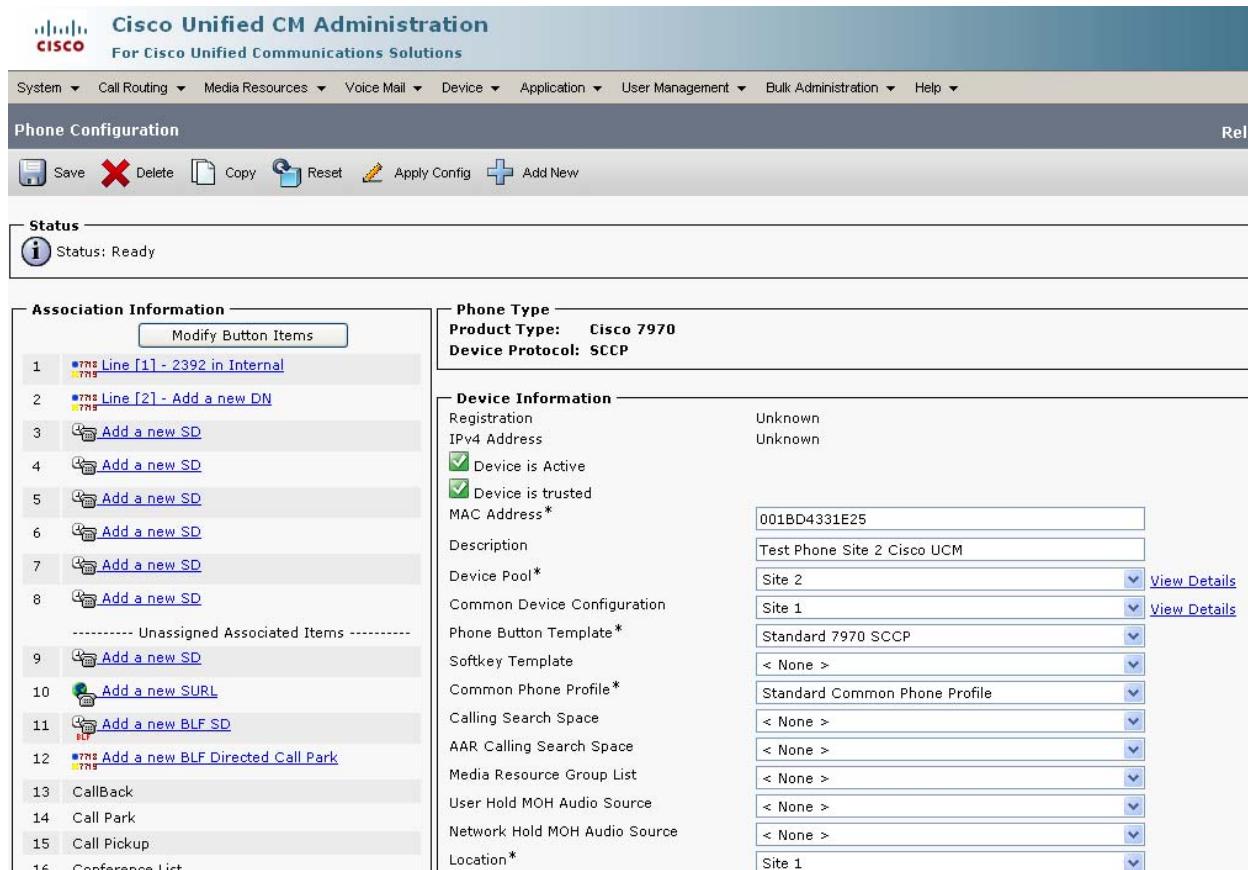
Common Device Configuration (1 - 2 of 2)			Rows per Page 50
Find Common Device Configuration where Name begins with		Find Clear Filter	
	Name	begins with	
	Site 1	Site 1	
	Site 2	Site 2	

Add New | Select All | Clear All | Delete Selected

Figure 60 - Common Device Configuration



The screenshot shows the 'Cisco Unified CM Administration' interface. In the top navigation bar, there are links for System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. On the right, there are links for Navigation, Cisco Unified CM Administration, Go, admin, About, and Logout. The main title is 'Find and List Attendant Console Users'. Below it, there are buttons for Add New, Select All, Clear All, and Delete Selected. A status message indicates 1 record found. The table header is 'Attendant Console Users (1 - 1 of 1)'. It has columns for User ID (sorted by ascending order) and a 'Find' button. One row is shown with User ID 6782391010. At the bottom of the table are buttons for Add New, Select All, Clear All, and Delete Selected.

Figure 61 - Attendant Console User


The screenshot shows the 'Cisco Unified CM Administration' interface. In the top navigation bar, there are links for System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. On the right, there are links for Navigation, Cisco Unified CM Administration, Go, admin, About, and Logout. The main title is 'Phone Configuration'. Below it, there are buttons for Save, Delete, Copy, Reset, Apply Config, and Add New. A status message indicates Status: Ready. The configuration page is divided into sections: 'Association Information' (listing items 1 through 16, mostly 'Add a new' options), 'Phone Type' (Product Type: Cisco 7970, Device Protocol: SCCP), and 'Device Information' (Registration, IPv4 Address, Device is Active, Device is trusted, MAC Address*, Description, Device Pool*, Common Device Configuration, Phone Button Template*, Softkey Template, Common Phone Profile*, Calling Search Space, AAR Calling Search Space, Media Resource Group List, User Hold MOH Audio Source, Network Hold MOH Audio Source, Location*). Most fields are dropdown menus or checkboxes.

Figure 62 - Detail Phone Configuration

Cisco Unified CM Administration
 For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Phone Configuration

Related Links: Back To Fi

Save Copy Apply Config

Setting	Value
17 Conference	< None >
18 Do Not Disturb	< None >
19 End Call	< None >
20 Forward All	Default
21 Group Call Pickup	Default
22 Hold	Default
23 Hunt Group Logout	< None >
24 Intercom [1] - Add a new Intercom	Default
25 Malicious Call Identification	Default
26 Meet Me Conference	Default
27 Mobility	Default
28 New Call	Default
29 Other Pickup	Default
30 Quality Reporting Tool	Default
31 Redial	Default
32 Remove Last Participant	Default
33 Transfer	Default
34 Video Mode	Default
35 Privacy	< None >
36 None	< None >

Use Device Pool Calling Party Transformation CSS
 Retry Video Call as Audio
 Ignore Presentation Indicators (internal calls only)
 Allow Control of Device from CTI

Figure 63 - Detail Phone Configuration - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Phone Configuration

Logged Into Hunt Group
 Remote Device
 Protected Device****

Protocol Specific Information

Packet Capture Mode*	<input type="text" value="None"/>
Packet Capture Duration	<input type="text" value="0"/>
Presence Group*	<input type="text" value="Standard Presence group"/>
Device Security Profile*	<input type="text" value="Cisco 7970 - Standard SCCP Non-Secure Profile"/>
SUBSCRIBE Calling Search Space	<input type="text" value="COS1-Site1"/>
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> Require DTMF Reception	
<input type="checkbox"/> RFC2833 Disabled	

Certification Authority Proxy Function (CAPF) Information

Certificate Operation*	<input type="text" value="No Pending Operation"/>
Authentication Mode*	<input type="text" value="By Null String"/>
Authentication String	<input type="text"/>
<input type="button" value="Generate String"/>	
Key Size (Bits)*	<input type="text" value="1024"/>
Operation Completes By	<input type="text" value="2010 11 26 12 (YYYY:MM:DD:HH)"/>
Certificate Operation Status: None	
Note: Security Profile Contains Addition CAPF Settings.	

Figure 64 - Detail Phone Configuration - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Phone Configuration

Save Delete Copy Reset Apply Config Add New

Expansion Module Information

Module 1	< None >
Module 1 Load Name	<input type="text"/>
Module 2	< None >
Module 2 Load Name	<input type="text"/>

External Data Locations Information (Leave blank to use default)

Information	<input type="text"/>
Directory	<input type="text"/>
Messages	<input type="text"/>
Services	<input type="text"/>
Authentication Server	<input type="text"/>
Proxy Server	<input type="text"/>
Idle	<input type="text"/>
Idle Timer (seconds)	<input type="text"/>

Extension Information

<input type="checkbox"/> Enable Extension Mobility	
Log Out Profile	-- Use Current Device Settings --
Log in Time	< None >
Log out Time	< None >

MLPP Information

MLPP Domain	< None >
-------------	----------

Figure 65 - Detail Phone Configuration - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Phone Configuration

Related Links: [Back To Find/List](#)

Video Capabilities*	Disabled
Auto Line Select*	Disabled
Web Access*	Enabled
Days Display Not Active	Sunday Monday Tuesday
Display On Time	07:30
Display On Duration	10:30
Display Idle Timeout	01:00
Span to PC Port*	Disabled
Logging Display*	PC Controlled
Load Server	
Recording Tone*	Disabled
Recording Tone Local Volume*	100
Recording Tone Remote Volume*	50
Recording Tone Duration	
Display On When Incoming Call*	Disabled
RTCP*	Disabled
"more" Soft Key Timer	5
Auto Call Select*	Enabled
Log Server	
Advertise G.722 Codec*	Use System Default
Wideband Headset UI Control*	Enabled
Wideband Handset UI Control*	Enabled

Figure 66 - Detail Phone Configuration - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Phone Configuration

Related Links: [Back To Find/List](#)

Wideband Handset UI Control*	Enabled
Wideband Headset*	Enabled
Wideband Handset*	Use Phone Default
Peer Firmware Sharing*	Disabled
Cisco Discovery Protocol (CDP): Switch Port*	Enabled
Cisco Discovery Protocol (CDP): PC Port*	Enabled
Link Layer Discovery Protocol - Media Endpoint Discover (LLDP-MED): Switch Port*	Enabled
Link Layer Discovery Protocol (LLDP): PC Port*	Enabled
LLDP Asset ID	
LLDP Power Priority*	Unknown
IPv6 Load Server	
IPv6 Log Server	
802.1x Authentication*	User Controlled
Detect Unified CM Connection Failure*	Normal
Minimum Ring Volume*	0-Silent
Headset Sidetone Level*	Use Phone Default
Enbloc Dialing*	Enabled

Figure 67 - Detail Phone Configuration - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

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Directory Number Configuration

Save Delete Copy Reset Apply Config Add New

Status

Status: Ready

Directory Number Information

Directory Number*	1002
Route Partition	Internal
Description	Elvis Presley
Alerting Name	Elvis Presley
ASCII Alerting Name	Elvis Presley

Allow Control of Device from CTI

Line Group	HuntTest		Edit Line Group
Associated Devices	SEP0023EBC78105		Edit Device
			Edit Line Appearance

Dissociate Devices

Directory Number Settings

Voice Mail Profile	Unity_Connection		(Choose <None> to use system default)
Calling Search Space	COS4-Site1		
Presence Group*	Standard Presence group		
User Hold MOH Audio Source	< None >		

Figure 68 - Directory Number Services Configuration - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

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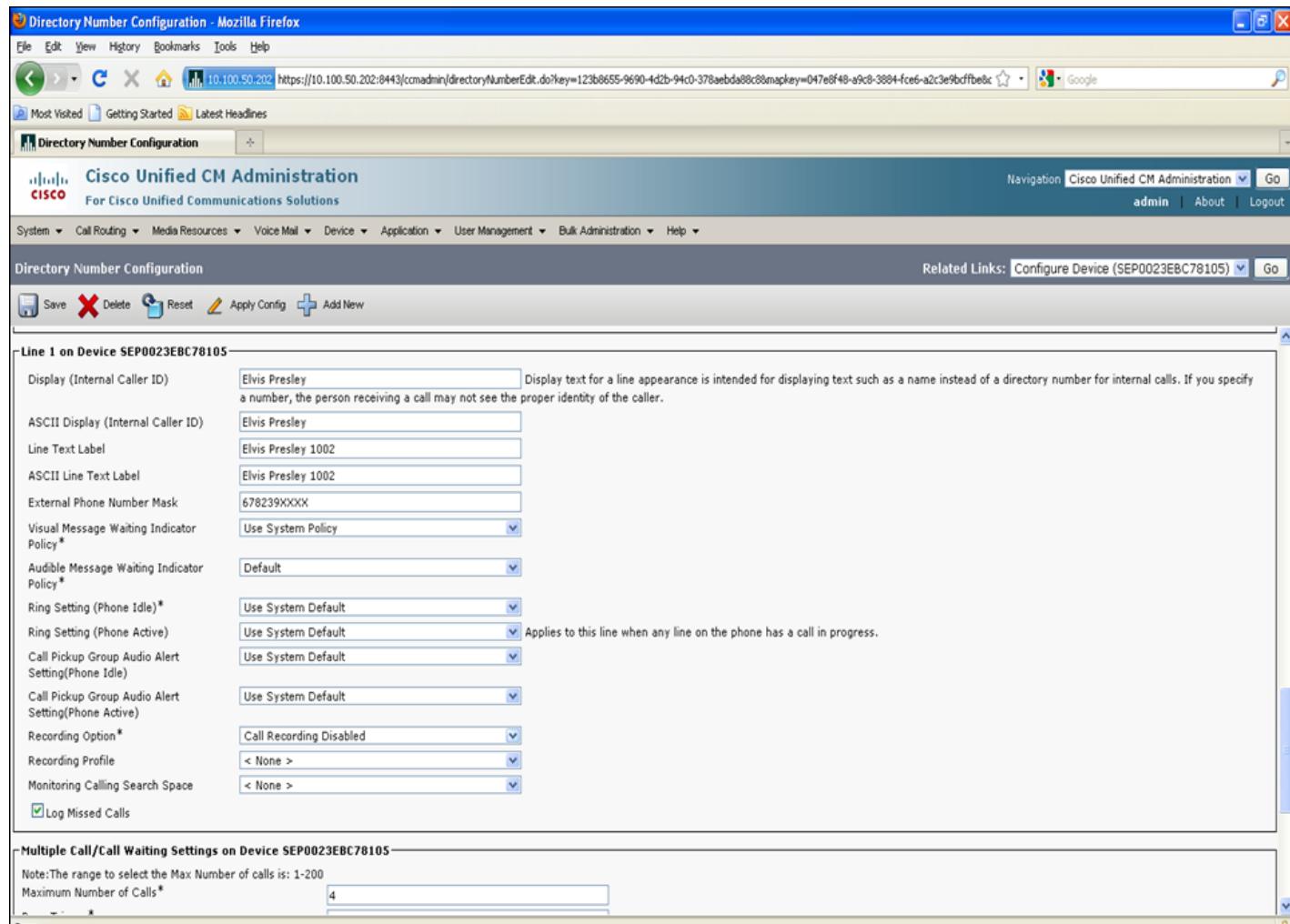
Directory Number Configuration Related Links: [Back To Find/List](#) ▾ Go

Forward No Coverage Internal	<input checked="" type="checkbox"/> or	<input type="text"/>	<input type="button" value="< None >"/>
Forward No Coverage External	<input checked="" type="checkbox"/> or	<input type="text"/>	<input type="button" value="< None >"/>
Forward on CTI Failure	<input checked="" type="checkbox"/> or	<input type="text"/>	<input type="button" value="< None >"/>
Forward Unregistered Internal	<input checked="" type="checkbox"/> or	<input type="text"/>	<input type="button" value="COS4-Site1"/>
Forward Unregistered External	<input checked="" type="checkbox"/> or	<input type="text"/>	<input type="button" value="COS4-Site1"/>
No Answer Ring Duration (seconds)	10		
Call Pickup Group	<input type="button" value="PickupGroup In Local Site 1"/>		

Park Monitoring

Voice Mail	Destination	Calling Search Space
<input type="checkbox"/> or	<input type="text"/>	<input type="button" value="< None >"/> A blank value means to call the parker's line.
<input type="checkbox"/> or	<input type="text"/>	<input type="button" value="< None >"/> A blank value means to call the parker's line.
Park Monitoring Reversion Timer <input type="text"/> A blank value will use value set in Park Monitoring Reversion Timer service parameter		

Figure 69 - Directory Number Services Configuration - Continued



The screenshot shows the Cisco Unified CM Administration interface for Directory Number Configuration. The device selected is SEP0023EBC78105. The configuration page includes fields for Display (Internal Caller ID), ASCII Display (Internal Caller ID), Line Text Label, ASCII Line Text Label, External Phone Number Mask, Visual Message Waiting Indicator Policy*, Audible Message Waiting Indicator Policy*, Ring Setting (Phone Idle)*, Ring Setting (Phone Active), Call Pickup Group Audio Alert Setting(Phone Idle), Call Pickup Group Audio Alert Setting(Phone Active), Recording Option*, Recording Profile, Monitoring Calling Search Space, and Log Missed Calls. A note indicates that the range for Maximum Number of Calls is 1-200, with a value of 4 currently selected.

Figure 70 - Directory Number Services Configuration - Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

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Directory Number Configuration

Save Reset

Setting(Phone Active)

Recording Option *

Recording Profile

Monitoring Calling Search Space

Log Missed Calls

Multiple Call/Call Waiting Settings on Device SEP0023EBC78105

Note:The range to select the Max Number of calls is: 1-200

Maximum Number of Calls*

Busy Trigger* (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device SEP0023EBC78105

Caller Name
 Caller Number
 Redirected Number
 Dialed Number

Users Associated with Line

Save Delete Reset Apply Config Add New

* - indicates required item.
 ** - Changes to Line or Directory Number settings require restart.

Figure 71 - Directory Number Services Configuration - Continued

7.5 SIP Message Trace Examples

7.5.1 Incoming SIP INVITE – PSTN (E-SBC) to Cisco CUBE

```

INVITE sip:6782391001@172.16.1.5:5060 SIP/2.0
Via: SIP/2.0/UDP 172.16.1.1:5060;branch=z9hG4bKm3d0m89bite5c408406o4rdqk7
Record-Route: <sip:6782391001@172.16.1.1;lr>
From: "PSTNLINETEST1" <sip:4046691360@172.16.1.1:5060;user=phone>;tag=SDjcurc01-
1438275345-1273243620664-
To: "6782391001 6782391001" <sip:6782391001@172.16.1.1:5060>
Call-ID: SDjcurc01-5ad26d17fa988ebc728d8b51189bf9ea-vrvfv3
CSeq: 966650525 INVITE
Contact: <sip:172.16.1.1:5060;transport=udp>
Supported: 100rel
Max-forwards: 69
Allow: ACK, BYE, CANCEL, INFO, INVITE, OPTIONS, PRACK, REFER, NOTIFY, UPDATE
Content-Type: application/sdpAccept: multipart/mixed, application/media_control+xml, application/sdp
Content-Length: 247
v=0
o=BroadWorks 89489 1 IN IP4 172.16.1.1
s=-c=IN IP4 172.16.1.1
t=0 0
m=audio 17468 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000/1
a=sqn: 0
a=cdsc: 1 image udptl t38
a=mptime:20
a=ptime:20
a=rtpmap:101 telephone-event/8000/1
a=fmtp:101 0-15

```

7.5.2 Outgoing SIP INVITE – Cisco CUBE to PSTN (E-SBC)

```

INVITE sip:4046691360@172.16.1.1:5060;user=phone SIP/2.0
Via: SIP/2.0/UDP 172.16.1.5:5060;branch=z9hG4bK2531301
From: "James Dean" <sip:6782391001@172.16.1.5;user=phone>;tag=56E64F88-35E
To: <sip:4046691360@172.16.1.1;user=phone>
Date: Fri, 07 May 2010 14:50:06 GMT
Call-ID: A8DD7589-591E11DF-BFAFAA4A-35F18573@172.16.1.5
Supported: 100rel,timer,resource-priority,replaces,sdp-anat
Min-SE: 1800
Cisco-Guid: 2832845825-1495142879-3215567434-905020787
User-Agent: Cisco-SIPGateway/IOS-12.x
Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY,
INFO, REGISTER
CSeq: 101 INVITE
Timestamp: 1273243806
Contact: <sip:6782391001@172.16.1.5:5060;user=phone>
Expires: 180
Allow-Events: telephone-event

```

Max-Forwards: 69
 Session-Expires: 2200
 P-Asserted-Identity: "James Dean" <sip:6782391001@172.16.1.5>
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 241
 v=0
 o=CiscoSystemsSIP-GW-UserAgent 3969 9006 IN IP4 172.16.1.5
 s=SIP Callc=IN IP4 172.16.1.5
 t=0 0
 m=audio 18982 RTP/AVP 0 101
 c=IN IP4 172.16.1.5
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=ptime:20

7.5.3 Transfer SIP UPDATE – Cisco CUBE to PSTN (E-SBC)

UPDATE sip:172.16.1.1:5060;transport=udp SIP/2.0
 Via: SIP/2.0/UDP 172.16.1.5:5060;branch=z9hG4bK25B1BF9
 From: "6782391001 6782391001" <sip:6782391001@172.16.1.1:5060>;tag=56E796F4-22DB
 To: "PSTNLINETEST1" <sip:4046691360@172.16.1.1:5060;user=phone>;tag=SDjcurc01-1438275345-1273243620664-
 Date: Fri, 07 May 2010 14:51:33 GMT
 Call-ID: SDjcurc01-5ad26d17fa988ebc728d8b51189bf9ea-vrvfvf3
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Max-Forwards: 70
 Route: <sip:6782391001@172.16.1.1;lr>
 Supported: 100rel,timer,resource-priority,replaces,sdp-anat
 Timestamp: 1273243911
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 CSeq: 101 UPDATE
 Contact: <sip:6782391001@172.16.1.5:5060>
 Remote-Party-ID: <sip:4046691323@172.16.1.5>;party=called;screen=no;privacy=off
 Content-Length: 0

UPDATE sip:172.16.1.1:5060;transport=udp SIP/2.0
 Via: SIP/2.0/UDP 172.16.1.5:5060;branch=z9hG4bK25CC1D
 From: "James Dean" <sip:6782391001@172.16.1.5>;tag=56E7CDA0-48E
 To: <sip:4046691323@172.16.1.1>;tag=SD3po2899-1307487053-1273243634795
 Date: Fri, 07 May 2010 14:51:43 GMT
 Call-ID: E32BF056-591E11DF-BFC4AA4A-35F18573@172.16.1.5
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Max-Forwards: 70
 Route: <sip:EWGW_0@172.16.1.1;lr>
 Supported: 100rel,timer,resource-priority,replaces,sdp-anat
 Timestamp: 1273243911
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 CSeq: 103 UPDATE

Contact: <sip:6782391001@172.16.1.5:5060>
 Remote-Party-ID: "INFOSYSTEST" <sip:4046691360@172.16.1.5>;party=calling;screen=yes;privacy=off
 Content-Length: 0

7.5.4 Call Forward SIP INVITE – Cisco CUBE to PSTN (E-SBC)

```

INVITE sip:4046691323@172.16.1.1:5060;user=phone SIP/2.0
Via: SIP/2.0/UDP 172.16.1.5:5060;branch=z9hG4bK26125E2
From: "PSTNLINETEST1" <sip:4046691360@172.16.1.5;user=phone>;tag=56E8B114-27C
To: <sip:4046691323@172.16.1.1;user=phone>
Date: Fri, 07 May 2010 14:52:42 GMT
Call-ID: 5E16542-591F11DF-BFD6AA4A-35F18573@172.16.1.5
Supported: 100rel,timer,resource-priority,replaces,sdp-anat
Min-SE: 1800
Cisco-Guid: 98417594-1495208415-3218123338-905020787
User-Agent: Cisco-SIPGateway/IOS-12.x
Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY,
INFO, REGISTER
CSeq: 101 INVITE
Timestamp: 1273243962
Contact: <sip:4046691360@172.16.1.5:5060;user=phone>
Expires: 180
Allow-Events: telephone-event
Max-Forwards: 66
Session-Expires: 2200
P-Asserted-Identity: "PSTNLINETEST1" <sip:4046691360@172.16.1.5>
Diversion: <sip:6782391001@172.16.1.5>;privacy=off;reason=unconditional;screen=yes
Content-Type: application/sdp
Content-Disposition: session;handling=required
Content-Length: 240
v=0
o=CiscoSystems
SIP-GW-UserAgent 5232 531 IN IP4 172.16.1.5
s=SIP Callc=IN IP4 172.16.1.5
t=0 0
m=audio 16636 RTP/AVP 0 101
c=IN IP4 172.16.1.5
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=ptime:20

```

7.6 Full Detail IOS Configurations

```

! Site 1 – Grumpy -- CUBE IOS Configurations
!
Current configuration : 6683 bytes
!
! Last configuration change at 11:30:27 EST Mon Jun 7 2010 by admin
! NVRAM config last updated at 11:30:28 EST Mon Jun 7 2010 by admin
!

```

```

version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
service sequence-numbers
!
hostname Grumpy
!
boot-start-marker
boot system flash c2800nm-ipvoice_ivs-mz.124-24.T2.bin
boot-end-marker
!
! card type command needed for slot/vwic-slot 0/0
logging message-counter syslog
logging buffered 1000000
no logging console
!
no aaa new-model
clock timezone EST -5
!
ip source-route
!
!
ip cef
!
!
no ip domain lookup
no ipv6 cef
multilink bundle-name authenticated
!
!
voice service voip
allow-connections sip to sip
fax protocol cisco
modem passthrough nse codec g711ulaw
sip
bind control source-interface Loopback0
bind media source-interface Loopback0
min-se 2000
header-passing
asserted-id pai
privacy pstn
midcall-signaling passthru
sip-profiles 1
!
!
voice class sip-profiles 1
request INVITE sip-header SIP-Req-URI modify " SIP/2.0" ";user=phone SIP/2.0"
request REINVITE sip-header SIP-Req-URI modify " SIP/2.0" ";user=phone SIP/2.0"
request INVITE sip-header Contact modify ">" ";user=phone>"
request REINVITE sip-header Contact modify ">" ";user=phone>"
request INVITE sip-header To modify ">" ";user=phone>"

```

```

request REINVITE sip-header To modify ">" ";user=phone>"
request INVITE sip-header From modify ">" ";user=phone>"
request REINVITE sip-header From modify ">" ";user=phone>"
!
!
voice translation-rule 39
rule 2 /^1\(...\)$/ /6782391\1/
!
!
voice translation-profile calling-mask
translate redirect-target 39
translate redirect-called 39
!
!
voice-card 0
dspfarm
dsp services dspfarm
!
!
username admin privilege 15 secret 5 $1$xscF$snZsx7K1jcqGNK6nW5PZn/
archive
log config
hidekeys
!
class-map match-any AutoQoS-VoIP-RTP-Trust
match ip dscp ef
class-map match-any AutoQoS-VoIP-Control-Trust
match ip dscp cs3
match ip dscp af31
!
!
policy-map AutoQoS-Policy-Trust
class AutoQoS-VoIP-RTP-Trust
  priority percent 70
class AutoQoS-VoIP-Control-Trust
  bandwidth percent 5
class class-default
  fair-queue
!
interface Loopback0
description SIP Interface
ip address 172.16.1.5 255.255.255.252
!
interface FastEthernet0/0
description Internal Interface
no ip address
duplex full
speed 100
auto qos voip trust
service-policy output AutoQoS-Policy-Trust
!
interface FastEthernet0/0.1

```

```

description Management VLAN 1
encapsulation dot1Q 1 native
ip address 192.168.1.1 255.255.255.0
!
interface FastEthernet0/0.2
description SIP Trunk Access
encapsulation dot1Q 10
ip address 172.16.10.2 255.255.255.252
!
interface FastEthernet0/1
description Edgemark
ip address 172.16.1.2 255.255.255.252
duplex auto
speed auto
auto qos voip trust
service-policy output AutoQoS-Policy-Trust
!
ip forward-protocol nd
ip route 0.0.0.0 0.0.0.0 172.16.10.1
ip route 192.168.0.0 255.255.0.0 172.16.10.1
!
!
ip http server
ip http access-class 23
ip http authentication local
ip http timeout-policy idle 60 life 86400 requests 10000
!
!
control-plane
!
rmon event 33333 log trap AutoQoS description "AutoQoS SNMP traps for Voice Drops" owner AutoQoS
rmon alarm 33333 cbQosCMDropBitRate.18.3164929 30 absolute rising-threshold 1 33333 falling-
threshold 0 owner AutoQoS
!
!
sccp local FastEthernet0/0.2
sccp ccm 192.168.200.20 identifier 2 version 7.0
sccp ccm 192.168.100.20 identifier 1 version 7.0
sccp
!
sccp ccm group 1
associate ccm 1 priority 1
associate profile 2 register TRAN-SITE-1
associate profile 1 register MTP-SITE-1
!
dspfarm profile 2 transcode
codec g711ulaw
codec g711alaw
codec g729ar8
codec g729abr8
maximum sessions 24
associate application SCCP

```

```

!
dspfarm profile 1 mtp
codec g711ulaw
maximum sessions software 100
associate application SCCP
!
!
dial-peer voice 1 voip
destination-pattern 6782391...
session protocol sipv2
session target ipv4:192.168.100.20
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 2 voip
preference 1
destination-pattern 6782391...
session protocol sipv2
session target ipv4:192.168.200.20
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 10 voip
translation-profile outgoing calling-mask
destination-pattern 1[2-9].[2-9].....
session protocol sipv2
session target ipv4:172.16.1.1
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 11 voip
translation-profile outgoing calling-mask
preference 1
destination-pattern [2-9].[2-9].....
session protocol sipv2
session target ipv4:172.16.1.1
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 12 voip

```

```

translation-profile outgoing calling-mask
destination-pattern 011T
session protocol sipv2
session target ipv4:172.16.1.1
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 13 voip
translation-profile outgoing calling-mask
destination-pattern [2-9]11
session protocol sipv2
session target ipv4:172.16.1.1
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 3 voip
destination-pattern 6782392...
session protocol sipv2
session target ipv4:192.168.100.20
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 4 voip
preference 1
destination-pattern 6782392...
session protocol sipv2
session target ipv4:192.168.200.20
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
dial-peer voice 14 voip
translation-profile outgoing calling-mask
preference 1
destination-pattern [2-9].....
session protocol sipv2
session target ipv4:172.16.1.1
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling

```

```

no vad
!
dial-peer voice 15 voip
translation-profile outgoing calling-mask
preference 1
destination-pattern 101....1[2-9]..[2-9].....
session protocol sipv2
session target ipv4:172.16.1.1
dtmf-relay rtp-nte
codec g711ulaw
ip qos dscp cs5 media
ip qos dscp cs4 signaling
no vad
!
!
sip-ua
retry invite 3
timers trying 100
!
!
gatekeeper
shutdown
!
!
line con 0
login local
line aux 0
line vty 0 4
access-class 23 in
privilege level 15
login local
line vty 5 15
access-class 23 in
privilege level 15
login local
!
scheduler allocate 20000 1000
ntp peer 192.168.100.20
ntp server 192.168.100.20
end

! Cisco Unified Express Voice Mail System
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Sneezy
!
boot-start-marker
boot-end-marker

```

```

!
! card type command needed for slot/vwic-slot 0/0
logging buffered 51200 warnings
!
no aaa new-model
clock timezone EST -5
dot11 syslog
!
!
ip cef
!
!
no ip domain lookup
multilink bundle-name authenticated
!
!
voice-card 0
no dspfarm
!
!
crypto pki trustpoint TP-self-signed-1016059772
enrollment selfsigned
subject-name cn=IOS-Self-Signed-Certificate-1016059772
revocation-check none
rsakeypair TP-self-signed-1016059772
!
!
crypto pki certificate chain TP-self-signed-1016059772
certificate self-signed 01
3082023E 308201A7 A0030201 02020101 300D0609 2A864886 F70D0101 04050030
31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274
69666963 6174652D 31303136 30353937 3732301E 170D3130 30313237 32303334
30315A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649
4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D31 30313630
35393737 3230819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281
8100E4EE B43F3ED3 3F4945EF 8E8C2B3D 1B2587FB 4D19964F 7AA27DAA A8B53433
42A036DE A1FEFDD9 9F07FA3A AC94E2AE 8A76F86B E8CF4698 0E310A3C 74BC2114
FD7777DE 362E21BC 01F71893 E30D4508 0026EDB0 EFB6B51F 1A4B277F BF24C995
606081A2 5F51F91B 35A9A0B6 E4E0E224 62241BE5 371795C2 2750643F B6A23DD6
FD550203 010001A3 66306430 0F060355 1D130101 FF040530 030101FF 30110603
551D1104 0A300882 06536E65 657A7930 1F060355 1D230418 30168014 BE359A93
2BC11314 24B68728 D1D66A03 44FB3607 301D0603 551D0E04 160414BE 359A932B
C1131424 B68728D1 D66A0344 FB360730 0D06092A 864886F7 0D010104 05000381
81005AD2 35E7F709 BC1D6CC8 FDA98BBA D52B78D4 50AAC2A6 BC5CA16C 32DDC65E
BE9C729C CC43BC39 2E926AF8 22A80A89 EDCDEA7C 7DFB42F7 461551AF 4B541731
700D0F12 361D887C 7D1B04BA 9DB4D67B 154EFCCB 8EEB6234 834516CC E153989F
44AF91FF 80DF56FE 3EDAFA6A B5D427FA 0018A8B1 9F57C21E 243A76B6 0462EE55 E8F7
quit
!
!
username admin privilege 15 secret 5 $1$Qfk7$cwTNvyLG9jxGfXrAatbyc1
archive

```

```

log config
hidekeys
!
!
class-map match-any AutoQoS-VoIP-RTP-Trust
match ip dscp ef
class-map match-any AutoQoS-VoIP-Control-Trust
match ip dscp cs3
match ip dscp af31
!
!
policy-map AutoQoS-Policy-Trust
class AutoQoS-VoIP-RTP-Trust
priority percent 70
class AutoQoS-VoIP-Control-Trust
bandwidth percent 5
class class-default
fair-queue
!
!
interface FastEthernet0/0
description Internal Network
no ip address
duplex auto
speed auto
auto qos voip trust
service-policy output AutoQoS-Policy-Trust
!
interface FastEthernet0/0.1
encapsulation dot1Q 1 native
ip address 192.168.1.5 255.255.255.0
ip nat inside
ip virtual-reassembly
!
interface FastEthernet0/0.2
encapsulation dot1Q 220
ip address 192.168.220.1 255.255.255.0
ip nat inside
ip virtual-reassembly
!
interface FastEthernet0/1
description connection from COX Network
ip address 10.100.50.200 255.255.255.0
ip nat outside
ip virtual-reassembly
duplex auto
speed auto
auto qos voip trust
service-policy output AutoQoS-Policy-Trust
!
interface FastEthernet0/1/0
!

```

```

interface FastEthernet0/1/1
!
interface FastEthernet0/1/2
!
interface FastEthernet0/1/3
!
interface Integrated-Service-Engine1/0
ip unnumbered FastEthernet0/0.2
service-module ip address 192.168.220.30 255.255.255.0
service-module ip default-gateway 192.168.220.1
no keepalive
!
interface Vlan1
no ip address
!
ip forward-protocol nd
ip route 0.0.0.0 0.0.0.0 10.100.50.1
ip route 172.16.0.0 255.255.0.0 192.168.220.2
ip route 192.168.0.0 255.255.0.0 192.168.220.2
ip route 192.168.220.30 255.255.255.255 Integrated-Service-Engine1/0
!
!
ip http server
ip http access-class 23
ip http authentication local
ip http secure-server
ip http timeout-policy idle 60 life 86400 requests 10000
ip nat inside source static 192.168.1.2 10.100.50.201
ip nat inside source static 192.168.100.20 10.100.50.202
ip nat inside source static 192.168.200.20 10.100.50.203
ip nat inside source static 192.168.100.30 10.100.50.204
!
control-plane
!
rmon event 33333 log trap AutoQoS description "AutoQoS SNMP traps for Voice Drops" owner AutoQoS
rmon alarm 33333 cbQosCMDropBitRate.18.3164929 30 absolute rising-threshold 1 33333 falling-threshold 0 owner AutoQoS
rmon alarm 33334 cbQosCMDropBitRate.34.5364641 30 absolute rising-threshold 1 33333 falling-threshold 0 owner AutoQoS
!
!
line con 0
login local
line aux 0
line 66
no activation-character
no exec
transport preferred none
transport input all
transport output pad telnet rlogin lapb-ta mop udptn v120 ssh
line vty 0 4
access-class 23 in

```

```

login local
length 0
transport input telnet ssh
line vty 5 15
access-class 23 in
privilege level 15
login local
transport input telnet ssh
!
scheduler allocate 20000 1000
ntp clock-period 17180827
ntp peer 192.168.100.20
!
end

/** Cisco Analog Voice Gateway VG202 configuration **/


!
version 12.4
no service pad
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname VG202
!
boot-start-marker
boot-end-marker
!
logging message-counter syslog
enable secret 5 $1$T8KF$UdA4F3MFMFxAMzEMBLnZu1
!
no aaa new-model
ip source-route
!
ip cef
no ipv6 cef
!
stcapp ccm-group 1
stcapp
!
stcapp feature access-code
!
stcapp feature speed-dial
!
!
voice service voip
modem passthrough nse codec g711ulaw
!
!
voice-card 0
!
```

```

username admin privilege 15 secret 5 $1$OTG6$gmEKkbulgXiSRXA9Tqskg.
archive
log config
hidekeys
!
interface FastEthernet0/0
ip address dhcp
duplex auto
speed auto
!
interface FastEthernet0/1
no ip address
shutdown
duplex auto
speed auto
!
ip forward-protocol nd
!
no ip http server
!
control-plane
!
voice-port 0/0
timeouts initial 60
timeouts interdigit 60
timeouts ringing infinity
!
voice-port 0/1
timeouts initial 60
timeouts interdigit 60
timeouts ringing infinity
!
ccm-manager fax protocol cisco
ccm-manager config server 192.168.100.20
ccm-manager sccp local FastEthernet0/0
ccm-manager sccp
!
mgcp fax t38 ecm
mgcp behavior g729-variants static-pt
!
sccp local FastEthernet0/0
sccp ccm 192.168.200.20 identifier 1 version 7.0
sccp ccm 192.168.100.20 identifier 2 version 7.0
sccp
!
sccp ccm group 1
associate ccm 1 priority 1
!
!
dial-peer voice 999000 pots
service scapp
port 0/0

```

```
!
dial-peer voice 999001 pots
  service scapp
  port 0/1
!
!
line con 0
  login local
  no modem enable
line aux 0
line vty 0 4
  privilege level 15
  login local
  length 0
!
end
```